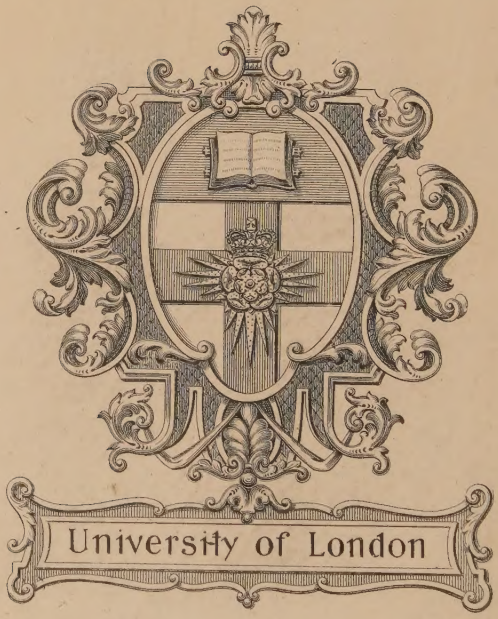
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REPORT

FROM THE

SELECT COMMITTEE

ON

PRESERVED MEATS (NAVY);

TOGETHER WITH THE

MINUTES OF EVIDENCE,

APPENDIX AND INDEX.

Ordered, by The House of Commons, *to be Printed,*
3 *May* 1852.

Jovis, 12° die Februarii, 1852.

Ordered, That a Select Committee be appointed to inquire into the Contracts, and the Mode of making them, for the supply of Meat Provisions for the use of Her Majesty's Navy, from the Year 1845 to 1851, inclusive, and to the Rejection of Preserved Meats; and into the Causes which have led to the receiving into the Government Stores, and to the Issuing for the use of Her Majesty's Ships on Foreign Service, certain Preserved Meats, which have proved to be unfit for Human Food; and into the Means by which an occurrence so prejudicial to the Public Service may most effectually be prevented.

Lunæ, 16° die Februarii, 1852.

Committee nominated, of—

Sir William Jolliffe.
Sir Francis Baring.
Colonel Chatterton.
Admiral Stewart.
Admiral Bowles.
Mr. Alderman Humphery.
Lord Claud Hamilton.
Mr. Fordyce.
Mr. Miles.
Mr. Strutt.
Viscount Newport.
Mr. Archibald Hastie.
Mr. Yorke.
Mr. Bunbury.
Mr. Gwyn.

Ordered, That the Committee have power to send for Persons, Papers, and Records.

Ordered, That Five be the Quorum of the said Committee.

Mercurii, 17° die Martii, 1852.

Ordered, That Lord Claud Hamilton be added to the Committee.

Veneris, 26° die Martii, 1852.

Ordered, That Viscount Newport be added to the Committee.

Lunæ, 3° die Maii, 1852.

Ordered, That the Committee have power to report their Observations, together with the Minutes of Evidence taken before them, to The House.

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REPORT.

THE SELECT COMMITTEE appointed to inquire into the Contracts, and the Mode of making them, for the Supply of MEAT PROVISIONS for the Use of Her Majesty's Navy, from the Year 1845 to 1851, inclusive; and into the Rejection of PRESERVED MEATS; and into the Causes which have led to the receiving into the Government Stores, and to the issuing for the Use of Her Majesty's Ships on Foreign Service, certain Preserved Meats, which have proved to be unfit for Human Food; and into the Means by which an Occurrence so prejudicial to the Public Service may most effectually be prevented; and who were empowered to report the Minutes of the Evidence taken before them;—HAVE, pursuant to the Order of the House, examined the matters to them referred, and have agreed to the following REPORT:

THE Evidence produced was of a mixed character:—1, Official—2, Non-official.

The first consisting, as well of parol testimony, given by the officers connected with the different naval departments and victualling yards, as of documentary evidence, contracts, correspondence, &c.

2. That which was non-official was afforded by such persons, as, by their practical knowledge and personal experience, could offer some suggestions relative to the process of preserving animal substances, whereby much of the mischief which had arisen from their decay, might be obviated, and the causes thereof made more manifest; so that an article of provision, described as being very beneficial to the health and comfort of the seamen, might still form a part of the victualling of Her Majesty's Fleet.

Your Committee beg leave to urge that, notwithstanding some doubts have been expressed concerning the lasting qualities of meat, preserved under any process (663. 213), and facts have been adduced which tend in some degree to confirm that opinion (727, 728); yet, there is evidence to show, "that if they are good in the first instance, they will remain good for any term of years" (1839), as was found to be the case under the general special survey of 1851; when meat, "which might have been in the canisters five, or six, or even ten years (for anything that was known to the contrary, there being no dates), the same having been returned into store, from ships previous to 1850, was "in beautiful condition" (1456), while some "of ancient date was very good indeed" (1457). Mr. Hogarth, himself a contractor and preserver of meats, "knows no limit to its keeping with fair treatment in any climate," illustrating this declaration of opinion by the fact, that "he had seen beef the other day which had been 17 years, which was as good as the day it was made (2255). Mr. Grant adds very important testimony, when he says, "There is no question that if the air is entirely expelled from the canister, the meat will keep an unlimited time." "I myself," he proceeds to say, "made an experiment 14 years ago, upon this subject, and it was only by chance last summer that I found some of those canisters, and opened them, and found the meat perfectly good. It was done in conjunction with the present Governor of Malta, but then we took very great pains in expelling the air from the canisters, and the success was perfect" (417). Certain Members of the Committee can corroborate this statement to some extent; themselves having seen and eaten some Australian beef, preserved by Messrs. Dangar in Australia, then four years old, than which nothing could be finer, either in flavour or quality (2067, 2068).

It may not be wholly unprofitable in this place, to give a short historical summary of the introduction of this article of provision into the Navy. It appeared that the discovery of preserving meats dates so far back as 40 years since, and that as early as 1831, applications had been made for them (144), as well by particular officers as by ships going on special service (145); that in 1830 the earlier issues of preserved meats were intended for "medical comforts, and their success induced some parties to recommend them as an article of general victualling in lieu of salt beef." That they were so issued, and generally were favourably reported on (*Milne*, 611). That in the year 1847 they were issued as general

general rations (167). That although complaints had always been made concerning them (148), the same had not prevailed to any extent (788, 789), on the contrary, it is shown, "that he (Goldner) had been going on well from 1844 to 1849; the condemnations during that period not being greater than the condemnations of other species of provisions" (173). In the year 1849, however, the complaints of these meats became more frequent, and between that year and 1850 and 1851 were so multiplied (149), and the causes so detailed (150), as to invite public attention to, and elicit public opinion upon, the subject.

It appears that the provisions so specially complained of were supplied by running contract, dated 28th December 1844 (to be determined by three months' notice), between the Government and Mr. Goldner, then manufacturing in London, at Hounsditch, as well as at Galatz in Moldavia. At the latter place had established a tallow factory, "the production of tallow being the first and chief object, and that of meat quite secondary" (see Despatch, 28th July 1851, from Chas. Cunningham, esq.), and that he was by this double trade enabled to furnish the supplies thus contracted for at a very low rate per pound.

Your Committee find, that the complaints in question were responded to by the Admiralty immediately, and a survey ordered, under which there were great condemnations, and the contract of 1844 was determined in 1849. That the same parties then entered into a new and more stringent contract in 1850, and again in 1851; but that the increasing complaints and consequent condemnations and rejections under surveys, ordinary and special, on delivery at the store, and on subsequent extraordinary occasions, induced the Admiralty not only to put an end to and cancel the contract deed of 1851, but to prohibit any deliveries under that contract at the Government yards. (136.)

This brief notice leads Your Committee naturally to the first head of their inquiry, namely, the CONTRACTS themselves, and the mode of making them.

Your Committee find, that these deeds are framed and prepared by competent and experienced persons in the contract department of the Admiralty (James 2553), and that notwithstanding the contracts now under consideration have not received the sanction of any legal authority (2613), yet, forasmuch as they were mere transcripts of deeds, which had at

one time or other been settled, having received the sanction of the Government solicitor (2613) "varied only by the substitution of unimportant words" (2614), there appears not to have been any necessity for further legal corroboration; "that they were revised according to the necessity of the case" (2557), "and specially so in the case of preserved meats" (2558); "that they were enlarged between 1844 and 1850, with the view of making them more stringent" (2560, 2561); that by such enlargement no further obligation can be imposed than by those now existing" (816); "that they are very stringent" (1272); "that they are as stringent as words can make them" (2610); "that they fulfil all intentions;" "that no additional security could be obtained by additions;" that "words may be multiplied without corresponding advantage" (2612); that "the terms are, substitution where the supplies are rejected on delivery, abatement from the payments due to the contractor in case of condemnation, with power to purchase elsewhere at his charge, coupled with sureties of a sufficiently solvent reputation to sustain the loss where the principal shall fail" (2611).

Your Committee, then, would thus sum up their opinion upon this branch of the inquiry, and cite the words of one of the witnesses as the terms of their own judgment.

"That it does not appear that so far as the present enlarged contracts tend to security anything further can be done than is done" (1104). There is a contract, a rigid inspection, a penalty for the non-fulfilment of the terms of the contract, and that is as much as can be done with respect to the contract with the view to insure the best meat being provided" (1104). —*Ede.*

The question then naturally arises,

1. Have the powers vested in the authorities by these contracts been exercised?

2. Has the inspection been rigid?

3. Has care been taken to prevent similar failures in time to come?

4. Has the Treasury been sufficiently protected against loss?

The contracts themselves show, that a power of entry into the manufactories of the contractors of preserved meats by their appointed agent or officer was given to the Commissioners

sioners of the Admiralty Board, due notice being required to be given by the said contracting parties of the periods when, and the places where, they intended to preserve, in order to ascertain, "that the process of preserving in every respect was conformable to the conditions of the contract" (*see* Contract).

This power, Your Committee feel bound to say, was not generally acted upon. In Goldner's case, the distance from home was in itself a hinderance to its well intended purpose; and even if it could be enforced to its utmost limit, it is a power which does not seem to be wholly free from objection. In 1851 the power was set in motion; entry has been made; inspection has taken place at the different places at home, where contracts have been entered into (520).—*See* Admiralty Order, 26 April 1851. *Milne* (518 *et seq.*) *T. T. Grant* (366-369).

The objections, however, which attach to such a condition, seem to be not wholly without reason. It is doubtful whether the visit of the inspector, and any act done by him in pursuance thereof, might not shift the responsibility which rested by the deed on the contractor, to the inspector himself, and so neutralize the liability of the former, which the deed itself was intended to impose on him alone. It might also affect the subsequent examination on delivery at the Government yards (518). "It might be thought if there was a Government officer responsible, that in case of anything going wrong he would be found fault with, whereas if they (the meats) came directly to them (the Government officers) from the contractor, they would examine them very carefully, and that is the better check" (*Milne* 519-695). Speaking with reference to the exercise of this power, Mr. Ede says (1103), "I should not advise that being done always, because in doing that you take off the responsibility of the contractor;" again, "The system of superintendence of the manufacture of meat, at the contractor's yard by Government officers, is extremely objectionable" (1163). The contractor might say, "I did it according to the recommendation of your officers" (1164); and in another place, "so long as the system of contracts is acted upon, the whole responsibility should be thrown on the contractor and the receiving officer" (1168), and when referring to contracts abroad it has been said (860), "an efficient inspection, such as would be a necessary and useful precaution, could not well be exercised out of the country."

In Goldner's case the order was given by the Commissioners of the Admiralty to inspect (26 April 1851, *see* Papers, App.);

but the contract with respect to which such order was issued having been cancelled, the order itself was revoked, inspection no longer being deemed necessary.

Your Committee agrees in opinion, that whatever tends to neutralize or supersede the responsibility which is imposed on the contractors, or the officers of the several departments under Government; whatever tends to divide the duties which should be performed by one, between two or more, fails to secure that advantage to the public interest which rests on individual liabilities, and which the stipulated obligations on the one hand, and the official position on the other, are supposed to promote, and intended to guarantee; such inspection, then, your Committee thinks, cannot be a subject of recommendation; and since it cannot be so recommended, your Committee hesitates, before it attaches culpability to the non-user of a power so questionably beneficial.

The contracts contain also a further power given to the officers of Her Majesty's victualling yards, "who shall, upon every delivery of the said meats, have power and be at liberty to open such a number of cases containing the same as they shall deem requisite, in order to ascertain that the contents thereof, are in every respect agreeable to the conditions of the contract," &c.

It is clearly shown that the discretion inseparable from the above condition has been used profitably towards the public, and justly and fairly towards the contractors. It is, in fact, a customary duty (38), and has been put in force in spite of complaints on the part of the contractor of the loss suffered by him (119), sometimes amounting to one and a half per cent. (2235), and latterly the departmental vigilance has been redoubled, in consequence of the greater amount being found bad (1037), and the quality being doubted, a greater desire has been shown to detect what was bad (1039). Moreover general surveys have been ordered, and rigidly conducted, and in each of the victualling yards, Deptford, Plymouth and Portsmouth, the result has been, to speak generally, that old subsisting contracts have been cancelled, new covenants and new obligations made and imposed; that greater vigilance in the inspection of these meats previous to their receipt into store has been exercised; general large and "sweeping" (607) condemnations of this class of provisions in store determined upon, and application made to, and terms agreed upon by new contracting parties for future supplies; added

added to which there has been a limitation in the issues of preserved meats as an article of general victualling. Captain Milne states (636), "that it would be better to wait a twelvemonth, and see the result of the new contracts with Mr. Hogarth and Mr. Moir, of Aberdeen; whether there will be the same complaints of their meat as of Mr. Goldner's, and as a precautionary measure, issues of such supplies have been restricted to two stations, to the Pacific, and to the coast of Africa, the east and west side, where the men are kept a great deal upon salt provisions."

As regards the rigid inspection of the officers of the Victualling yards, and the determination of the Board of Admiralty to carry out their reports, it may be as well to state, that upon a large quantity of preserved provisions having been condemned at the Clarence Yard in December 1850 by the storekeeper (whose judgment was confirmed afterwards by special survey), and the contractor's agent having refused to take away the whole quantity from the stores, that an arrangement was made by the Admiralty solicitors. "When the meat became very offensive we had instructions from Mr. Greetham, the solicitor at Portsmouth, who is agent for Mr. Robson, the Admiralty solicitor, saying, that arrangements were being made to call in the magistrates; and we were told to let guardians of the poor visit the stores. Eight or ten gentlemen came; and after that Sir Edward Parry and myself were summoned before the magistrates to show cause why we had kept anything in the stores that was likely to be injurious to the health of the neighbourhood. But Mr. Greetham said, that though we were summoned we were not to attend; that the magistrates would seize the meat and throw it overboard. The consequence was that we did not attend the summons. But the magistrates would take no further steps in it; they said that they had done all that they could; that they would not condemn the meat, but that the Admiralty must find their own remedy" (1285). Dr. M'Kechnie, the master attendant, and Mr. J. Pinhorn were then ordered to open every canister in store, and that which was good was given to the wives and children of the sailors and marines in the neighbourhood who were deserving, whilst that which was bad was thrown overboard.

Has the public been indemnified against loss?

The conditions of the contracts are regarded as the security to the public. In reply to a question put with a view to gain some

some information respecting the comparative loss to the country between the old salt provisions and the preserved meats, Mr. Ede (1084) says, "I should state in reference to the loss to the Crown, that the whole of the salt meat, if condemned, would be a total loss if more than a twelvemonth old. The preserved meat condemned is not a loss to the Crown unless it is five years old, and (1081) "the preserved meats come back in canisters, but if a cask of salt meat is opened, they go into an inspection of the whole, condemn it, and throw it away. It does not come back to England, but every canister of preserved meat would come back."

As regards the preserved meats, the debtor and creditor account with Mr. Goldner is as follows:

STATEMENT showing the CONDEMNATIONS which have taken place of MEATS Supplied for the Use of the NAVY by Mr. *Goldner*, made up to the 6th April 1852.

	£.	s.	d.		£.	s.	d.	£.	s.	d.
Stopped from bill, 24 February 1851 - - -	875	7	5	Total value of condemnations on board ships and in store, up to 4th February 1852 - - - -	6,118	10	1			
Stopped from contractor, and remaining in hand - -	3,201	–	–							
Penalty under bond of sureties for - - - -	3,000	–	–	Total value of condemnations on board ships and in store, between 5th February and 6th April 1852	573	2	8			
								6,691	12	9
				Balance - -	-	-	-	384	14	8
£.	7,076	7	5				£.	7,076	7	5

Thos. T. Grant, Comptroller of Victualling.

8 April 1852.

N.B.—The above is the value of the condemnations up to the present period, so far as accounts have been received, but it is to be observed, that there are supplies of Goldner's preserved meat in store, recently returned from ships abroad, but upon which no special survey has yet been ordered to be made; several of the canisters opened indiscriminately have been found to be perfectly sweet and good, and fit for issue.

Thus far, then, these questions seem to have been answered satisfactorily so far as the public departments and the Treasury is concerned, but some few observations must yet be made before this branch of the inquiry is concluded.

It has been suggested to the Committee, "that if supplies under contracts are still to be preferred, that the lowest tender should not be taken" (412); "that the mode now adopted, namely, by sample, is better calculated to secure the fulfilment of the contract" and that "running contracts," as they are termed, "are not good, and do not answer" (448); further, "whether

"whether any contract should be entered into with a man resident and preserving abroad" (2568. 2574 *et seq.*) On the other hand, a very experienced officer has stated, "that the principle of accepting the lowest tender cannot be departed from, and that the matter would not be improved if you took a higher" (563); but he also says, "that we know at this moment we have never got the best portions of the animal!" (630).

There is, however, some evidence to show "that this principle has been departed from," and Your Committee think wisely, even if all the desired results have not been obtained. It has been shown that the arctic ships, "Erebus" and "Terror," were supplied with preserved meats bought specially for the purpose (160), at a price varying from 7*d.* to 2*s.* per lb., and not, as in Mr. Goldner's contracts, at 4¾*d.*, 5*d.*, and 5¾*d.* A superior description of meat was issued to the "Plover," obtained from Goldner by special purchase, at 8*d.* and 1*s.* per lb. (409. 419), and that the meat taken at a higher price, under present contracts, by sample, is generally of a very superior quality, and remarkably fine meat indeed (412). "Fears were entertained with respect to its keeping, but inquiry has proved that few canisters present the least appearance of decomposition" (412). It seems then that meat contracted for "at a higher price, being of a superior quality," stands some chance of being fit for use, and hence the declaration, the truth of which seems sufficiently proved, "that, supposing the present system of contracts should be carried on, the lowest tender should not be taken" (412).

Your Committee now approach the second branch of their inquiry, namely, "the causes which have led to receiving into the Government stores, and to the issuing, for the use of Her Majesty's ships on foreign service, certain preserved meats unfit for human food."

The examination which takes place upon delivery into store of the preserved meats in canisters must necessarily consist of a small per-centage, as after opening a canister, the meat contained therein rapidly becomes useless, and latent causes imperceptible to observation sometimes exist (referred to in the subsequent report), which render these meats in a longer or shorter time unfit for use.

The process of curing is of a very delicate nature, requiring the greatest care and attention to obtain the desired result. The Committee has heard much evidence upon the different methods

methods of cure in use by different manufacturers; upon one point all were agreed, namely, that the most watchful care in the process itself, the greatest cleanliness, the selection of the best animals for the purpose, so far as respects health and condition were concerned, were indispensable requisites (2315), before submitting them to the curing process, no matter by whom recommended. These qualities seem to be necessary to ensure, with any degree of certainty, the keeping of a class of provision so decidedly useful to the health and comfort of the seamen of the Navy, without which the process will fail, and for want of which so much prejudice has been created against a most useful invention.

Other causes have been suggested as productive of failure, and the reply to Question (426), supplies three reasons.

1. The air not having been properly expelled from the canisters, *i. e.* imperfect cooking.

2. "On account of injury to the canisters from being knocked about."

3. "The expansion and contraction of the metal of which the canister is made during or after the operation of closing, or sealing it."

The first point here noticed has reference to the size of the canisters in which the meat is preserved. Some contractors had stated that in their opinion meat could be preserved in large as well as small canisters, and there is a Report in the Comptroller's Office on this subject (217), (572. 573, 574). The large canisters chiefly containing 12 lbs. weight (although some have been mentioned of 32 lbs.) were introduced into the contracts of 1850, 1851 (165). The fact of failure in the larger sizes is distinctly referred to by Captain Milne (731), who, while he forgets the proportion, at once declares, "that the decay is more in the nines and twelves than in the sixes;" and this is confirmed by a further statement, "that very few condemnations were made in small canisters" (1002), and "that the 6 lb. and 4 lb. canisters were always fit for use, and never one found bad" (1567–8 and (1752). Mr. Dangar, the importer of Australian meats already referred to, says, "the 6 lb. tins are most convenient" (2000), there should be none larger than 6 lb., "in them the preservation is far better" (2002), and the reason assigned is, "that in the larger pieces of meat there is more cooking required, and there is greater difficulty in getting at the interior of the meat from the larger extent of it" (2003). Where a witness was asked (164), "To what species of defect in the process of curing is the increased

increased amount of condemnation to be attributed," the reply was, "That the meats under the contract of 1850 and 1851 were ordered to be in whole pieces, which is very much against the proper preservation;" and again, that there is a great chance, if the meat be put in large pieces into large canisters, of that meat not being properly preserved" (164). Mr. Hogarth says, "that the larger pieces in 12 lb. canisters might be irregularly cooked" (2179).

The care required during the process is best illustrated by Mr. Moore, who thus accounts for his own failure:—"So long as he looked after it, and did it in a small way, he never had a failure, but when he put it into the hands of a man to do it for him, he lost 1,000*l.*" (2351); and Mr. Hogarth says, "If I were to stand over, and see the process done with my own eyes, I could swear to not one canister in a thousand going wrong; but supposing any of your servants to be careless and allow the fires to go out, or the heat to fall below a certain pitch, if the meat is not properly cooked, (*i. e.* unless every particle of air be thrown off,) no matter what the vacuum were, it would not keep" (2162). Goldner himself writes (Galatz, 9 June 1851, *see* Correspondence), "the meat to be properly preserved, must be fully cooked, to expel the atmospheric air from its fibres, which are liable to retain air."

Your Committee, therefore, feel justified in stating that the process is very delicate, requiring great care, and that the difficulty of success is mainly dependent on the size and weight of the canisters, and is increased or diminished according to the size and weight being greater or less. The present contracts, therefore, have reference to this point, and those meats now in course of preserving are to be delivered in 6 lb. canisters only (174, 175. 374. 621).

Your Committee are of opinion that one great cause of the increased frequency of condemnations, and of the greater uncertainty of success on the part of the contractors, was the demand for canisters of an enlarged size. The extensive condemnations that have taken place are almost exclusively confined to the 9 lb. and 12 lb. canisters. On investigation it would appear that although provisions may perhaps be as effectually preserved in the larger sized canisters, yet it undoubtedly requires much greater care to ensure the success of the process; and in order to obtain the sufficient cooking of the interior portion of such canisters, the exterior portion is liable

liable to be overcooked. There is likewise an increased liability to injure such canisters in moving and storing them, owing to their greater weight. The contractors generally prefer to limit the size of the canisters to 6 lb., but the Admiralty ordered the larger sizes for two reasons, which, in the opinion of your Committee, fully justified their adoption at that time, although subsequent experience has proved that they are objectionable. The reasons that influenced the Admiralty were, that the men greatly preferred larger pieces of meat than could be obtained from the 6 lb. canisters; and the contractors could afford to supply the same quality of meat at a lower price when the larger canisters were used. When, however, experience proved that greater risk of failure was incurred by the use of the larger canisters, the Admiralty promptly reversed their former orders, and the 6 lb. canister is now the maximum size permitted in the new contracts. In the opinion of your Committee this change will in itself greatly diminish the risk of future failure, and is calculated to restore confidence in the use of preserved meats, which the recent extensive condemnations have tended to impair.

The second ground of failure contained in reply (426), is stated to be injury to the canisters by being knocked about, whereby perforations are made, hence admission of air, and consequent putrefaction. The evidence certainly shows that little attention had until lately been paid to this very important point, but now, at the instance of Mr. J. Davies, a better mode of packing has been adopted, and is in use in Clarence Yard (1527). Goldner's canisters, in their voyage from Galatz, were very much indented and bruised (190); and the principle of stowing them in casks has been altogether wrong, "one canister is knocked against another," and "a great deal of injury does arise to the canisters from the manner in which they are treated after they leave the contractor's hands" (192); "on that account, the meat occasionally gets bad" (839); "and the larger canisters are more easily broken than the smaller or lighter packages, the tin covering in either case being the same" (841).

The second cause then seems established, and Mr. Davies has suggested a remedy for the future, whereby the injury alluded to will be much diminished. This recommendation the Committee think well worthy of the consideration of the Admiralty.

"The

The third ground suggested in reply, (426), is more speculative, and the Committee refer to the question (175), "as the best exponent of the principle contained therein."

"The fact is, that the canisters are made of thin iron plate tinned over, which brings it into connexion with a second metal, and then you use a spelter for the purpose of soldering up the seams; those three metals expand and contract at different rates and different temperatures, and I have no doubt from the expansion and contraction, a very small aperture takes place in the seam of the canister, the larger canisters in particular, and when once that is established there is an end to the meat, because I have myself seen, on looking at several of the canisters, that although there is no convexity apparent at the top or bottom of the canister, yet you will find upon the seam at one side there will be a little exudation, a little moisture coming out, not so large as a pin's head perhaps; I have had the canister put on one side, and exposed to a certain temperature, and that has increased materially, and convexity has taken place; the canister has then been opened, and the meat has been found in an incipient state of decomposition (174).

It is obvious that this fact recommends itself to the observation of scientific experience, to which alone it will with any useful result be best referred.

Your Committee have now at some length brought together, in a definite form, the principal evidence which bears on the two first heads of inquiry; the last only remains for observation, namely, that which demands some indication of the means by which an occurrence so prejudicial to the public service may most effectually be prevented.

The solution of this difficulty is of such vast importance that it cannot be overrated, nor too much care taken to promote it, for notwithstanding the special instances of unpopularity of these meats, to which replies (1662. 1664. 1731. 1740. 1760) refer, and the distaste of certain crews therein testified—a distaste, be it observed, engendered by the frequent exhibition of these stores before the eyes of the men at the daily issues (1668–1671. 1672)—yet, looking to the general character of the evidence before Your Committee, and the terms employed by the witnesses in respect to this article of provision, no reasonable doubt can be entertained "that it is desirable to continue the practice of issuing them as rations, if the meat can be preserved good," "as being very beneficial to the Navy" (1496). Some of the terms used to express the opinions

opinions of the witnesses are as follows: "These meats are a desirable thing for the comfort of the seamen as well as for the sick" (361). "They are the greatest boon ever given to the men, and they feel it as such" (361). "They are a great boon to the sailor, if good" (1685). "They are advantageous to the health and comfort of the men" (109). "The officers considered them a very excellent thing" (78). "A fresh meal once a week is a very good thing" (817). "They are very conducive to health" (1563).

How then is "this boon," "this excellent thing," "this thing so conducive to the health of the seamen" of Her Majesty's fleet to be secured? Is it to be abandoned or continued? and, if continued, under what regulations, by what means, and on whom is the responsibility of this "advantageous" preparation to be cast, "so that the occurrences so prejudicial to the public service may most effectually be prevented"?

The possibility of preserving meats in "the Government yards (1021) by competent persons, under the guidance and charge of skilled and scientific men, subject to the control and influence of Government authority has been contemplated." Mr. Grant says, alluding to the contract system, "My private opinion is, that is certainly not a good way of getting fresh meat for the Navy" (360); and again (362), "as it is an article as to which we cannot ascertain by inspection whether it is good and proper in every respect, it is very desirable that we should manufacture it, and put it up ourselves in our own establishments." Captain Milne (615) says, "I think it would be more satisfactory to the Admiralty themselves to know that the meats were prepared under their own eye, and by their own people;" and in (666) asserts, "that naval officers generally entertain an opinion that until you form establishments of your own you will never have confidence in it; in fact, you will never have confidence in what you get from the contractors;" and the case of "bread" and "chocolate" is appealed to as the foundation of such opinion, concerning which formerly there were constant complaints until we formed establishments for the purpose "of manufacture," and the assurance is given "that if Government would undertake it, an article such as it ought to be for the use of the service would be ensured" (856). "It would be preferable to have the meat prepared at a Government establishment, the same as everything else is done, and there are officers who would always see the thing properly done" (885). "Such a system would be a good one for the Government

Government to adopt" (894). "It would then be easy to secure that all the good parts should be taken and preserved, and that all the improper substances should be completely excluded" (893); "and there is no doubt that the best way of preventing the recurrence of these accidents with respect to preserved meats would be to establish a manufactory of the same kind in the victualling yards." "It would answer, and fewer complaints would be made" (901. 1484. 1514. 1599. (1603.)

The adoption of the suggestions herein set forth would at least be a palliation of many of the evils attending the contract system, if not altogether an effectual prevention of those occurrences so prejudicial to the public service, which have attracted towards them, undeservedly, as the evidence annexed will show, on the score of negligence, or want of care, not only popular comment, but general animadversion.

It is due to Mr. Grant to say, that he had submitted to the Board of Admiralty for their consideration, "that it would be desirable to manufacture the things themselves, instead of going to a contractor for them," alleging this very sufficient reason, "the impossibility of being satisfied, under the present system, that the meat is in every respect what it ought to be" (396).

The Committee have no reason to believe that this counsel was addressed to unwilling ears, nor is the renewal of the contract system for present supplies, 400,000 lbs. (399), at all inconsistent with such presumption, since the repeated rejections and condemnations had so exhausted the resources of the yards, "that there is great difficulty even now of supplying the quantity required" (404). It was necessary to replenish the diminished stock.

Should this course be pursued for the future, at what cost can it be done? and what convenience do the several yards already possess, if the proposed plan of domestic cure be put into operation by the Government?

1st. With respect to the cost of the manufacture itself,

Captain Milne is of opinion (615), "that the preparation in Government yards would cost a little more," but the satisfaction of knowing that nothing improper was manufactured would surely countervail the difference of increase, doubtful as that seems to be, for Commander Morrice "does not think the operation itself an expensive one." He is of opinion that Government might cure it as cheaply as contractors (855, 856), and he "does not see why, if a private individual can make a

profit in manufacturing this article, the Government should not do the same thing" (879). E. Ede, esq. (1111) says, "Government always produce their articles in the victualling at a smaller cost in the manufacturing than by contract; for instance, in the cost of bread and those kind of things, the cost of manufacturing is less." It is, then, but reasonable to infer, that so far as the practical operation of curing these meats at home is developed, no very great, if any, additional expense will be incurred.

2d. In respect of convenience, it has been shown, that at Deptford there are "special facilities" for carrying out this manufacture. There is a large slaughter-house and offices connected with the slaughter-house, which would enable it to be done effectually (1110).

"The expense of providing an establishment at Clarence Yard could not be very great" (1605), "because there appear to be buildings there which would answer the purpose" (1606). Captain Milne (631, 632) mentions the sum of 1,000 *l.* as sufficient to cover the whole expense.

Mr. Dangar, in reply to an inquiry whether the outlay, in his own factory in Australia, had been very great (where 500,000 lbs. of preserved meats can be produced very easily, and with little further expense, doubled or trebled), says, the expense has not been very considerable (2010, 2011), "notwithstanding labour is dearer in the colony than here, 15 or 20 per cent." (2013, 2014).

The expense, therefore, incidental to the creation of such establishments by the Government seems to present no sufficient reason for further delay; nor, when the importance of the subject be considered, does it justify the apprehension that the sum applied for would be refused, for it is to be observed, that the diminution of the cost of maintenance per man is very considerable. "In 1848, it cost 17 *l.* 15 *s.* per head per annum to victual the Navy; the estimate for the present year is 15 *l.* 0 *s.* 7 *d.*" (476).

The Committee examined four witnesses as regards the issue of preserved meats on board the "Apollo" trop ship, ton the 59th regiment, on their voyage to Hong Kong; and although the purser states that 19 per cent. of the preserved meats were bad, yet the Committee see no reason to suspect that the cholera was either engendered by the smell arising from the store of preserved meats, or by the use of them by the men. The regiment appears to have had a large number of Irish recruits, who were in an emaciated state from the recent

recent famine. Cases of cholera had taken place in the regiment previously to embarkation; and one death occurred from that disease on the day after the ship sailed.

Your Committee then is of opinion, after giving the subject their best consideration, that preserved meats should be manufactured for the future in the Government yards, or wherever Government shall select, as the best locality for their establishments, as "THE MEANS whereby occurrences so prejudicial to the public service may be materially, if not altogether and effectually, prevented in time to come." At the same time, the Committee do not wish to press the execution of their recommendation too hastily upon the Admiralty; nor ought they to be understood so to express themselves as to insist upon a rigid adherence to it, since occasions may arise when a relaxation of such system may be not only expedient, but conducive to the public service. As regards the contracts for preserved meats the general rule should be that they shall be obtained by public competition, but that the Admiralty should not be bound to accept the lowest tender.

With respect to the salted provisions supplied to the seamen of Her Majesty's fleet, nothing can be more satisfactory than the evidence on this point brought under the consideration of Your Committee. The failure that has occurred in the quality of salt provisions issued to Her Majesty's ship "Alarm," on the West Indian station, appears to have been solely attributable to the length of time the provisions have been in store; but as the supply is now kept down in stores to 18 months' consumption, such a circumstance is not likely again to occur.

Your Committee cannot bring their labours to a close without some expression of satisfaction, that their inquiry has been the means of bringing prominently before the House the care which has been bestowed of late years by successive Administrations upon the victualling of the Navy. For not only have the alterations made from time to time been the means of promoting the health, and materially adding to the comforts of the seamen, but these changes have been effected, and these benefits enlarged, without additional cost to the country (476).

3 May 1852.

EXPENSES OF WITNESSES.

NAME of WITNESS.	PROFESSION or CONDITION.	By what Member of Committee Motion made for Attendance of the Witness.	Date of Arrival.	Date of Discharge.	Total Number of Days in London.	Number of Days under Examination by Committee, or acting specially under their Orders.	Expenses of Journey to London and back.	Expenses in London.	TOTAL Expenses allowed to Witness.
							£. s. d.	£. s. d.	£. s.
Commander G. F. Morice.	Commander, R. N.	Chairman	23 March		1	1	3 – –	1 1 –	4 1
Mr. E. J. P. Pearn Mr. Edward Ede Mr. John Brown	Officers connected with Deptford Naval Yard.	Chairman	23 March		–	1	1 – –	1 – –	2 –
Mr. Joseph Pinhorn.	Storekeeper, Royal Clarence Yard, Portsmouth.	Chairman	26 March		1	1	1 18 –	1 1 –	2 19
Mr. John Davies	Master Attendant, Royal Clarence Yard.	Chairman	26 March		1	1	1 18 –	1 1 –	2 19
Dr. M'Kecknie	Naval Hospital, Haslar.	Chairman	26 March		1	1	1 18 –	1 1 –	2 19
Mr. Edwin A. Smith.	Purser "Arrogant."	Chairman	26 March		1	1	1 18 –	1 1 –	2 19
Mr William Hogarth.	Aberdeen Merchant.	Chairman	2 April		4	1	8 18 6	4 4 –	13 2
Mr. Edward Moore	Merchant, Stafford.	Chairman	2 April		2	1	3 5 –	2 2 –	5 7
Lieutenant-colonel Trevor.	Youghal	Col. Chatterton	30 April		5	1	9 10 –	5 5 –	14 15
Lieutenant James Leyne.	Fermoy	Col. Chatterton	30 April		5	1	9 10 –	5 5 –	14 15
Captain Dowdall	Portsmouth	Col. Chatterton	30 April		2	1	1 19 –	2 2 –	4 1
Mr. Huntley G. Gordon.	Surgeon, Portsmouth.	Col. Chatterton	30 April		2	1	1 19 –	2 2 –	4 1
Dr. Robertson	Portsmouth	Col. Chatterton	30 April		2	1	– 19 –	2 2 –	3 1
Mr. Henry Roger Cole.	Purser "Apollo"	Sir Francis Baring.	30 April		8	1	– –	8 8 –	8 8
Captain Rawstorne	Captain, R. N.	Sir Francis Baring.	30 April		7	1	– –	7 7 –	7 7
							TOTAL	£.	92 13

MINUTES OF EVIDENCE.

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MINUTES OF EVIDENCE.

Lunæ, 23° *die Februarii*, 1852.

MEMBERS PRESENT.

Mr. Miles.	Mr. Bunbury.
Lord Claud Hamilton.	Mr. Gwyn.
Colonel Chatterton.	Mr. Yorke.
Mr. Strutt.	Sir Francis Baring.
Admiral Bowles.	Admiral Stewart.
Mr. Alderman Humphery.	Viscount Newport.
Mr. Fordyce.	Mr. Hastie.

SIR WILLIAM G. H. JOLLIFFE, BART., IN THE CHAIR.

Thomas Tassell Grant, Esq., called in; and Examined.

T. T. Grant, Esq.

23 Feb. 1852.

1. *Chairman.*] YOU are Comptroller of the Victualling Department of the Navy?—I am.

2. How long have you held that office?—I have held that office for a twelvemonth; I entered upon it the latter end of January 1851.

3. That department is a branch of the naval administration acting under the Board of Admiralty, is not it?—Yes.

4. Do its duties extend to the victualling of Her Majesty's men-of-war, and the transports?—Yes.

5. Are there any other duties attached to it?—We send out supplies for troops abroad, on requisitions from the Treasury.

6. And the packet service also?—The packet service, to a certain extent; that is to say, we find passages upon orders from the Admiralty, or from the other departments.

7. What is the nature and extent of the control which the Admiralty exercises over the operations of your department?—They have the entire control over my department, in every respect.

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8. With regard to contracts, for example, are your orders with respect to them general; do you, upon any stores having been reduced to a certain extent, advertise for further contracts, or do you receive direct instructions from the Board of Admiralty on the subject?—When our stores are reduced below a certain amount, I submit for consideration whether such new contracts shall not be entered into for making up the deficiency, as may appear necessary.

9. That is the duty of your office?—It is.

10. How often do you take stock?—It depends entirely upon our issues. Whenever we find that the stock is low of any particular article, we make a statement to the Admiralty of what the remains are, and a submission that a certain quantity should be procured for making up the stock.

11. Does that apply to meat provisions?—Yes, to all descriptions of provisions.

12. Do tenders for contracts emanate from your office, or from the Board of Admiralty?—On advertisements being put out for tenders upon a given day, the tenders are put into what is called the tender-box, and at the hour appointed they are brought into the Board-room, when the tender-box is opened, and the tenders taken out. Since I have been there, we have had two individuals to take down those tenders; and when the abstracts are made, the individual who reads the tender takes one, and another takes the other, while a third individual reads the tenders over, so that there should be no mistake.

13. That takes place at your office?—At my office.

14. Not at the Board of Admiralty?—It is generally in the presence of one of the Lords of the Admiralty.

15. Upon which Lord of the Admiralty does that duty devolve?—On Captain Milne; he is the superintending lord.

16. I have a return before me which was presented to Parliament on the 12th of February; was that prepared at your office?—Yes.

17. It begins with the year 1844?—Yes.

18. That is a perfectly correct statement, is it?—I believe it is as correct as possible.

19. To what extent has it been thought necessary that the stock of preserved meats should be reduced before you reported to the Board of Admiralty that it would be necessary to advertise for new tenders?—During the last twelvemonth we have hardly thought it desirable to report at all, except in

one

one instance, inasmuch as we have reduced our issues very considerably during the last twelvemonth.

20. Is that in consequence of their being discontinued?—Yes; we thought it necessary that instead of supplying the navy generally we should only supply certain stations; inasmuch as it was found that ships were only comparatively a short time on salt provisions, we submitted that only certain stations, where fresh meat was rarely obtained, should be supplied in future with preserved meats; therefore we have reduced the issues considerably during the last twelvemonth.

21. That rendered a smaller stock necessary?—Decidedly.

22. By whom were the terms of the contracts prepared?—The terms of the contracts were determined by the Board, and the contracts were prepared by what is termed the contract department of the Admiralty.

23. That is not your office?—It is not.

24. I observe, from the form of the contract, it is addressed to the Secretary of the Admiralty?—No contracts can be entered into except under the sanction of the Board; the form is drawn up, as I have just stated, by the contract department, and submitted for the consideration of the Board previously to the contract being entered into.

25. Who is at the head of that department?—Mr. James is at the head of that department.

26. Are you aware whether the terms of the contracts for preserved meats have been altered at any time?—I only know it from the records in the office; they were very much altered from what they were formerly; the last two contracts of 1850 and 1851 have been very much altered from the former contracts; they have been made more stringent.

27. At any time when the contracts have not been complied with, or the article supplied was found to be defective in any way, what has been done by your department?—I cannot answer for what took place before I took upon myself the office; I do not know what course was pursued then.

28. Suppose there is any defect in the delivery, is that reported by your department to the Board of Admiralty?—Certainly; at least I have always reported it. Since I have been in my present office, when any deficiency or condemnation has taken place, I have always reported it to the Admiralty, and submitted whether the contractor should not be fined for having failed in the performance of his contract.

29. Sir *F. Baring.*] That is the usual course of business?—It

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—It is. I can only speak, of course, of what has been done since I have been in the office.

30. *Chairman.*] With regard to sureties, is it part of your duty to examine the validity of those sureties?—No; I fancy that duty belongs to the contract department.

31. Of which Mr. James is the head?—He is.

32. You know nothing on that subject?—No.

33. Sureties are required in every case of a contract for the navy?—Yes.

34. Are the Navy Victualling Yards at the different arsenals under your direction?—Yes.

35. Are the reports from them made to your department?—Generally. Some are made directly to the Admiralty. If any question is referred to them from the Admiralty, the answer is sent directly to the Admiralty independently of myself; but a question on any subject arising from my department, is always answered to my department.

36. Questions therefore may be put by the Board of Admiralty to the Clarence Yard, for example, and answers given without the communication passing through your office?—It may be so. I may say, however, that they invariably report having done so, and generally send me the papers after the answer has been received.

37. Are the condemnations which take place in those yards filed at your office?—Condemnations are filed in my office.

38. Do you appoint the inspectors to survey?—The yard officers under the captain superintendent of the yard are what are termed the receiving officers, and they inspect all the provisions which are delivered at the different establishments.

39. There have been of late other inspections or surveys ordered, and special officers appointed for the purpose, have not there?—Yes. In the case of preserved meats we submitted that a special survey should be held in the early part of the year 1851, and the Admiralty thought proper to appoint special officers in conjunction with the yard officers to examine the preserved meats in all the departments.

40. Was that done in each of the victualling yards?—Yes.

41. The three principal yards of Deptford, Plymouth, and Portsmouth?—Yes.

42. You were not in your present office in 1848, and, therefore, probably you were not examined before the Army and Navy Expenditure Committee?—No.

43. Are

43. Are you acquainted with the Report of that Committee? —I have not made myself particularly acquainted with it. I have seen the Report.

44. Is it part of the duty of your office to make the estimates with regard to the expenses of victualling the sailors? —Yes.

45. Do you know what the expenses are estimated at for the present year; I refer to what is commonly called Vote 2?— I think, to the best of my recollection, it is about 500,000*l.*; I cannot recollect the exact sum.

46. In 1848, I see by the Report the expense was 17*l.* 5*s.* 4*d.* per man?—It varies with the cost of provisions; last year we estimated that the expenses per man were about 9 ¾ *d.* a day; but that varies with the rates at which the estimated prices of provisions are settled for the following year.

47. Are those estimates formed upon a period of two years or one year?—Upon three years. We take as the basis the expenditure of the former years, and fix the prices according to them, and to our last contracts.

48. Has not a very considerable reduction taken place, within the last two years, in the price at which preserved meats have been contracted for?—No. I have no doubt in the last two years a great diminution took place in the general expense of victualling the navy.

49. You are not aware what the amount is per head per annum?—I am not, at this moment; perhaps about 15*l.*

50. Mr. *Miles.*] Previously to your filling your present office, were you in the victualling department?—I was attached to the victualling department.

51. Except what you have seen in looking over the different contracts made by Goldner, you know nothing as to those contracts?—I know nothing whatever.

52. Mr. *Yorke.*] Your duties are chiefly those of detail, subject to the control of the Admiralty, are not they?— Yes.

53. Are they confined to issues merely?—To issues and receipts.

54. You have stated that your own knowledge of that particular duty is confined to the period of one year?—Yes.

55. Whom did you succeed?—I succeeded Sir James Meek.

56. Can you give the Committee any account of the quantity of preserved meats which have been condemned and returned since you filled the office you now hold?—I think the published papers will show the whole amount of the condemnations

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demnations which have taken place of Goldner's preserved meats.

57. I do not refer to Goldner particularly; you have said that it was customary to return provisions which had been found by the captains of the ships to whom they were issued to be bad, to your department?—Yes.

58. Having only held your present office for one year, can you give the Committee an accurate account of what has been returned and condemned, and the reasons of such return and condemnation?—I do not know that I can, at the moment. We have had a quantity of preserved meats condemned from other parties besides Goldner. I will take the three yards; at Deptford there has been condemned 22,579 lbs.; that is Goldner's meat alone.

59. What contract was that by Goldner; was it one of the early ones, or a later one?—It must have been partly a later one.

60. Can you recollect the date?—I should say a portion of that meat was condemned under the contract of 1850. At the Royal William Yard, at Plymouth, there were condemned 111,108 lbs.

61. Was that all Goldner's?—Yes.

62. Lord *C. Hamilton.*] In what year was that?—That was under the contract of 1850. At the Clarence Yard there was 42,959 lbs. condemned.

63. Mr. *Yorke.*] Was that under Goldner's contract also?—Yes.

64. The contract of 1850?—Yes, a portion of it. All this meat has been condemned in 1851, but I am not positive that every canister was delivered into store under the contract of 1850, because many ships have returned their provisions into store, and it has been examined and not found fit for use, and condemned, knowing it to be Goldner's meat; but I will not say that the whole of it was under the contract of 1850.

65. It must have been either the contract of 1850, or a previous one?—Yes.

66. Can you state the amount for any other year?—We have not yet got the returns from the foreign yards.

67. What other yards would there be?—We have depôts at Malta, at Hong Kong, in the West Indies, and at other stations.

68. Can you tell by any means you have in your possession what were the quantities issued to any ships at Malta, Hong Kong, or the West Indies, of the condemnation or rejection of which you have no returns?—I think I can state that

that one quantity delivered under the contract of 1850 was condemned at Malta, and remains there.

69. Do you know to how many ships those quantities were issued, at Deptford, the Royal William, and the Clarence Yards?—Every single ship that was fitted out had a portion of them. It formed a ration to the Navy, and therefore every ship which was fitted out had her proportion of preserved meats.

70. Mr. Alderman *Humphery.*] What was the quantity issued to ships at Malta, Hong Kong, and the West Indies?—That I am not prepared to say; I can procure the information.

71. Mr. *Yorke.*] The whole quantity you are now speaking of was supplied under Goldner's contract?—Yes. I can state the disposal of the preserved meats supplied by Goldner under his contract of May 1850. There appears to have been delivered at Deptford, 249,410 lbs.; at the Royal William Yard, 125,246 lbs.; and at the Royal Clarence Yard, 50,096 lbs.; making a total of 424,752 lbs.

72. Can you state the gross amount issued to Malta, Hong Kong, and the West Indies?—I should say that almost the whole of the amount from Deptford was issued to foreign establishments, because that is the port from which we export all the provisions for the supply of our depôts abroad.

73. You cannot state the gross amount issued to Malta, Hong Kong, and the West Indies?—I cannot say at this moment how it was disposed of, but that quantity was received at Deptford for the supplies of the various depôts abroad.

74. The Committee are to understand you, that the 249,410 lbs. was the general amount of the issue to those three places?—It was received for being sent generally abroad to our depôts; some may have been sent to Halifax or to Bermuda.

75. Have you no account of the particular ships to which they were issued?—Yes, we can give an account of that description if required.

76. Do you recollect for what quantity Goldner's contract in 1850 was made?—For 500,000 lbs.

77. At what price?—I think at about 5 *d.* a pound on the average.

78. Cannot you state the exact sum?—There were three different sums; the 6 lb. canisters were at 5 $\frac{1}{8}$ *d.* per pound; 5 *d.* for the 9 lb. canisters, and 4 $\frac{7}{8}$ *d.* for the 12 lb. canisters.

79. Colonel *Chatterton.*] Is the difference of price at all

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affected by the size of the canisters?—Yes, there is less expense in making the larger canisters.

80. Mr. Alderman *Humphery.*] Is the tin weighed with the meat?—Now the meat is always weighed independently of the tins; upon the examination of the meat, the meat is turned out to see what the exact weight of it is; formerly it was not so. The manufacture at that time was different from what it is now. In the 12 lb. canisters they used to put 12 lbs. of meat, but in boiling it decreased perhaps to 11 lbs. 2 oz., or something of that kind. There was a dispute at the time, I believe, whether the meat should weigh the exact weight when it was put into the canister, or when it was cooked.

81. Do you weigh the canisters now?—The canisters which are opened for inspection.

82. With respect to those which are not opened, do you merely count the canisters?—I am not quite sure; I think they take perhaps 20 or 30 or 40 canisters, put them into the scale, and tell them off in that way, having weighed the actual contents only of those canisters which are opened.

83. Mr. *Miles.*] Previously to 1850 were there any 12 lb. canisters supplied to the navy?—I am not certain.

84. Have you a copy of that contract with you?—No.

85. Have not you some particular mark placed upon the canisters when the stores of preserved meats are sent in, so as to be able to distinguish in what year they were delivered?—In our late contracts we have done that; it was not so formerly.

86. Was it so in the year 1850?—I think it was introduced in the contract of 1850.

87. So that although at the present moment you are not quite certain as to some of those issues of Goldner's meat, which took place in 1850, whether or not they were supplied under the contract of 1850, or under a previous contract, by observing the mark upon the cases, you could accurately determine in which year it was?—Yes; we put a brass plate upon the canisters now, stating the date of the contract; it is soldered on the canisters.

88. Mr. Alderman *Humphery.*] Would not it be better that the mark should be stamped upon the canisters?—There has been a dispute upon that point; the contractors have stated that there is a difficulty in stamping the canisters with their names, inasmuch as it is likely that the canisters will be injured in the operation, therefore we thought it better

to

to put a brass plate upon the canisters, which appears on them when they are delivered. *T. T. Grant, Esq.* 23 Feb. 1852.

89. Mr. *Miles.*] You have stated to an Honourable Member the quantities which were condemned at the different yards; were you correctly understood to say that all those which were condemned had been issued to ships?—No.

90. Out of the number of canisters which were condemned at the different yards, can you distinguish those which had been issued for service and those which had never gone out of store?—We can do that, I think, if required.

91. Will you be kind enough to state to the Committee the quantities which had been issued for service, and the quantities which had not ever been issued from the stores?—I should think nearly the whole 249,410 lbs. received at Deptford had been issued for foreign service.

92. Are the Committee to understand that there were other meats at Deptford of Mr. Goldner's besides those 249,410 lbs.?—There was a small quantity which was delivered under his contract of 1851; but I do not think there was any previously to that.

93. The Committee are to understand that the whole quantity delivered under the contract of 1850 was 249,410 lbs.?—That was the amount at Deptford alone.

94. You say likewise that there was in store, and not issued, some under the contract of 1851?—A small quantity under the 1851 contract.

95. Was that examined?—Yes.

96. Was any of it found to be faulty?—Not at that time.

97. Has it since been found faulty?—Yes.

98. Can you tell the Committee the number of pounds delivered under the contract of 1851 at Deptford?—I think under the contract of 1851 there was about 150,000 lbs. delivered into store.

99. Was that at Deptford?—Yes.

100. When did the examination of that which was delivered into store in 1851 first take place?—I should think in March 1851; I cannot say exactly the month.

101. At what period was it delivered into store in 1851?—It was at that time.

102. It was first of all examined then?—Yes.

103. That was the examination which takes place when all meat is delivered?—Yes.

104. What was the next period of examination?—That was the only delivery that took place under 1851. In point of fact the 150,000 lbs. was delivered in several deliveries, each

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each shortly after the other. It was found upon delivery, in opening some of the canisters, that a piece of tongue was contained in two of them. The officers reported the circumstance to my department, wishing to know whether the tongue was to be considered as offal. It was a question I did not myself determine, and I took the opinion of some carcase butchers in Newgate Market, to ascertain whether a tongue was regarded as offal in the trade. They reported, that if the beast was sold minus the offal the tongue was always considered to go with the offal; and upon that I submitted the case to the Board for their consideration, whether, under the circumstances, the whole of that delivery should not be rejected, and thrown upon the contractor's hands. They immediately decided that the whole of that delivery was to be rejected; and it was consequently rejected.

105. That was the second delivery?—That was in one of the deliveries.

106. After you had found this offal in the second delivery was there a re-examination of the first delivery of 1851?—Yes, there was.

107. What occurred upon that; was it all found to be good?—In the month of May following there was a submission made to the Board that a general examination should take place of all the meats then remaining in store. Accordingly all Goldner's meat then remaining at Deptford was examined, and it was found that the meat of Goldner, which then remained in store, was serviceable and in a good state.

108. But still two months elapsed between the offal being found in the second delivery and the re-examination of the first delivery?—It was a re-examination of the remains of all of Goldner's meat in store; it was a special survey.

109. *Chairman.*] What has since become of the 150,000 lbs. delivered under the contract of 1851?—Whether I am correct in saying of one delivery that the amount of about 23,000 lbs. was taken away by the contractor, I am not sure. A certain quantity was rejected and taken away by him, and not received into store at all.

110. Mr. *Miles.*] Upon a contract being delivered, what number of cases are examined, and how are they examined?—The officers are directed to open as many as they think right and proper. The plan followed is this, that upon the delivery a certain number of canisters are opened, 10, 15, 20, or 25, and so on. If the officers find that the canisters opened are unexceptionably good, they are satisfied with that,

that, and the quantity is received; but if there is any doubt upon their minds as to the meat not being in every respect fit for service, they then open one, two, three, or five per cent. till they are satisfied whether the meat generally is to be received or rejected, and upon that the receipt or rejection takes place.

111. The cases are chosen indiscriminately?—The officers pick out a certain number of canisters indiscriminately.

112. The inspecting officer will be able to give the Committee the best information on that subject probably?—I should think so.

113. What occurred when the last delivery in 1851 was returned upon the contractor's hands?—I then submitted to the Board, that as there had been a rejection under the contract of 1851, it appeared to me that no dependence whatever was to be placed on Mr. Goldner, and I submitted for consideration, whether it would not be desirable to put an end to his contract altogether, and not to have any further dealings with him; upon which the Board acquiesced, and directed their solicitor to take the necessary steps for determining the contract. The contract was determined, and no more meat was delivered under Mr. Goldner's contract.

114. Did that contract come under your own cognizance?—Yes; but the arrangement and approval was made previously to my taking office.

115. Who were the securities of Goldner?—I recollect for the last contract a person of the name of Quilter was one, and I think Mr. Ritchie was the other.

116. What were the respective parties bound in?—I think they were bound in the penalty of 4,000 *l.*

117. Jointly or severally?—I think jointly and severally.

118. Mr. *Gwyn.*] Were they responsible parties?—I have reason to believe one of them in particular was; Mr. Quilter.

119. Lord *C. Hamilton.*] Are there any official regulations to guide the officers who examine those provisions, or are they left to their own discretion as to the way in which they test the quality of the provisions?—Formerly, when preserved meats were first delivered, the question was put to the authorities of the day what quantity of the meat should be opened, and they decided that if one canister out of a delivery was opened it was sufficient. I happen to have met with that in looking over the records of the office; but subsequently, I think, in the contracts of 1850 and 1851, a clause was inserted that the officers were to open such number of canisters as they thought necessary to satisfy their minds that the meat was good and fit

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fit for the service. The mode of examination was left to their decision, inasmuch as constant complaints were made by the contractor of the great loss which occurred to him from opening those canisters, as the meat was thrown upon his hands. It was therefore left for them to use their own judgment as to the number of canisters to be opened.

120. Has any examination been made of the provisions before they are put into the canisters?—Not latterly; I do not know, indeed, that in any instance the meat has been examined previously to its being put into the canisters; I think in the case of one of the Arctic Expeditions, one or two of the officers went down to see the kind of meat which they put in, but that was not done in the case of Goldner's meats.

121. Mr. *Miles*.] Was there any portion of Goldner's contracts sent out between the discovery of that tongue and the second examination of the first portion of the delivery?—Almost immediately upon the discovery having been made at Deptford, it was submitted to the Board that no dependence was to be placed upon Goldner or upon the preserved meats then in store, and it was suggested that no more preserved meats should be issued from any of Her Majesty's stores, and those orders were sent out immediately to the foreign depôts, and at the same time the Admiralty thought proper to send to the different commanders-in-chief at home and abroad, strict injunctions that no more provisions of Goldner's cure should be issued, and desiring that the whole of the meats then in store and on board ship should be sent home for the purpose of examination, inasmuch as we had found (having consulted our solicitor on the subject), that it would not be possible to sue for damages, unless we opened every individual canister to see whether it was good and fit for service, and according to contract or not. This course has been pursued, and is now being pursued.

122. So that now ships are constantly bringing home provisions from foreign stations, upon which an examination takes place?—Yes, the orders now are that all Goldner's meats are to be examined.

123. Therefore the Return in your hand does not show the whole which has been condemned up to the present time?—There is a proportion of it now left; all this time the good meat is being consumed, and we are receiving condemnations from abroad in the meantime.

124. Colonel *Chatterton*.] Were you aware that, although an examination of those provisions of Mr. Goldner which were supplied under the contract of 1850 took place, and they were

were found bad, the contract of 1851 was made with him ?— No, I can only state what occurred entered after I my present position. The contract in 1851 was dated January 1851. From the reports coming from different ships the fact was brought under the notice of the Admiralty soon afterwards, and then special surveys were ordered to take place at our different establishments. It was in April or May that the special surveys took place.

125. Are you aware whether the lowest contract is always selected, without reference to the respectability of the individual ?—I have not made any contracts myself with Goldner, but I believe it has been almost invariably the case in all contracts that the lowest tender has been accepted.

126. Mr. *Yorke.*] How soon after the contract of 1850 was any portion of that 500,000 lbs. issued ?—The earliest delivery at Deptford was in December 1850, and part of it was probably issued very shortly after.

127. Before 1851 ?—Probably not.

128. The actual issue was 424,752 lbs. from those three yards, leaving 75,248 lbs. to be accounted for ; do you know whether they have been issued or not, or whether they are still in store ?—I fear I have been misunderstood. When I spoke of the 424,752 lbs., I was not speaking of the issues. I was accounting for the deliveries under that contract by the contractor. I stated that, under that contract, 249,410 lbs. was delivered at Deptford, 125,246 lbs. was delivered at Plymouth, and 50,096 lbs. delivered at the Royal Clarence Yard.

129. Taking those three deliveries, the whole amount delivered was 424,752 lbs. ?—Yes, under the contract of 1850.

130. I understood you also to imply that that quantity was issued. You stated that, at Deptford, 22,579 lbs. were condemned and returned ; that 111,108 lbs. were condemned and returned at Plymouth ; and 49,959 lbs. at the Clarence Yard. Those must have been quantities condemned out of the issues of 424,752 lbs. to which you referred ; how do you account for the difference ? — The 22,579 lbs. were condemned at Deptford ; the 111,108 lbs. were provisionally condemned at Plymouth; and the 42,959 lbs. at the Clarence Yard. These were the total quantities condemned at those yards ; but, as that comprehends a large quantity returned from ships, there are no means of telling whether the whole of the meat was received under the contract of 1850, or under that of 1844. The entire quantity of 424,752 lbs. received

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received into store, under the contract of 1850, was never issued from the stores, but only a portion of it.

131. Out of the 424,752 lbs. so issued, 183,646 lbs. were returned to those several yards as condemned and rejected?—Yes; 176,646 lbs. were condemned, but only a portion of it had been issued and returned.

132. That leaves 241,104 lbs. to be accounted for. Has that quantity been consumed?—We suppose the greater portion has been consumed, or remains for consumption.

133. This was in 1850. Having found that 183,646 lbs. of this contract of Goldner's was deficient and condemned, what steps were taken with reference to further contracts with him by the Admiralty? In 1851, do you not find that the contract with Goldner was renewed?—We did not know of those condemnations of Goldner's provisions till 1851. They were issued in 1850. We had no account of them in the office till after the contract for 1851 was taken.

134. Though the issue was shortly after they had been brought into store, the account of their condemnation did not reach you till after the contract of 1851 was entered into?—Certainly not.

135. Is it the practice of the Admiralty, or those who have authority under them, before they are aware what is the real state of contracts which they have previously entered into, and have some proof that they have been faithfully performed, to enter into fresh contracts with the same persons again?—They had no particular reason, except a certain number of condemnations, to suppose that the contract of 1850 had not been faithfully carried out by Goldner. It was not till after the contract of 1851 was taken, that the Admiralty had reason to suppose that the contract for 1850 was not properly performed.

136. Supposing it to be established that the violation of the contract in 1850 did not come to the knowledge of the Admiralty till 1851, what took place with reference to the contract of 1851, which was entered into previously to such knowledge reaching them?—It was upon its being reported that tongue had been found in one of the canisters at the Deptford Victualling Yard, and also upon finding, after I took office, that reports were constantly coming in from ships stating that the meat was bad, that the Admiralty then determined upon a submission being made to them; that they would have nothing further to do with Goldner, and that they would cancel his contract.

137. Are the Committee to understand that under the contract

contract made with Goldner in 1851, there was no delivery?—I have mentioned that about 150,000 lbs. was tendered for delivery and accepted; but that but 23,000 lbs. was rejected on account of this tongue having been found.

138. A new contract having been entered into with Goldner in 1851, before the knowledge of the defective nature of the meat supplied under the contract of 1850 came to the Admiralty, what was done with reference to that contract of 1851, when such knowledge did reach them? Did they at once receive the meats supplied under the new contract of 1851, or did they reject them in consequence of what had happened in 1850?—On account of what took place under the contract of 1850 we rejected the deliveries tendered under the contract of 1851.

139. Mr. *Fordyce.*] Can you state what proportions of the meats condemned were in 6 lb. canisters, in 9 lb. canisters, and in 12 lb. canisters?—The officers are in the habit of taking a certain number of each sized canisters for inspection. They take three or four, or a dozen, or whatever the number may be, of each sized canisters.

140. Is there any record of the proportions which have been condemned in the 6 lb. canisters, the 9 lb. canisters and the 12 lb. canisters?—Yes; I have no doubt there is a record of the numbers which have been so condemned.

141. Admiral *Bowles.*] How long have you been connected with the victualling department?—I have been connected for twenty years with the victualling establishment.

142. Can you give the Committee any history of the commencement and subsequent extension of the issue of preserved meats to the Royal Navy?—I think, till the year 1846, preserved meats were only issued to the navy as medical comforts, in small canisters.

143. Can you state when the issue of preserved meats to the navy for any purpose commenced?—I cannot state the time exactly.

144. Sir *F. Baring.*] Do you recollect, from having looked through the papers, that in 1831 Sir Edward Belcher asked to be supplied with them?—Yes.

145. And that from that time to 1839 several applications were made for small quantities, for ships going upon special services?—Yes; several applications were made for preserved meats.

146. Admiral *Bowles.*] As far as you know, for what purpose were preserved meats first issued?—They were issued for

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for many years as medical comforts, not as an article of ration.

147. In what quantities were they issued to each ship?—They were issued according to the number of the men, and the wishes of the medical officer of the ship; there was a certain proportion put on board, but a very small quantity.

148. When did the first serious complaints on this subject commence?—Even with respect to these medical comforts, certain condemnations took place in consequence of the meat being bad; that was from the very earliest time of preserved meats being issued to the navy.

149. When were the first serious complaints made?—The first serious complaints were in 1849, the latter end of 1849; up to that time there were no serious complaints. The condemnations did not much exceed the condemnations of other classes of provisions.

150. *Chairman.*] What is your distinction between a complaint and a serious complaint?—In 1849 was the first complaint we had of anything like an improper substance having been found in a canister.

151. Admiral *Bowles.*] Do you know who were the original contractors for preserved meats for the navy?—Donkin and Cooper, and Gamble were the original contractors.

152. How many contractors have there been down to the present time?—Several individuals have sent in meat of different kinds. A man of the name of Wells sent in some preserved meats, and another man of the name of Simkin. Cope, and Nichol, and Hogarth, and Moir, and Powell, and Mackintosh also supplied us with some.

153. Have they all had contracts, or have they merely sent in specimens?—They supplied certain quantities of preserved meats to the navy.

154. But not under contract?—Some of them had contracts; Gamble had a contract, and so had Powell and Hogarth.

155. Did the meats supplied by those gentlemen whose names you have now mentioned, turn out upon examination to be as objectionable as Goldner's—Yes; I may say generally they have done so.

156. So that you have reason to believe that there will be a certain number of bad canisters in every supply?—Yes. We find from an account we drew out, of the quantity supplied to the arctic ships, the "Erebus" and the "Terror," that 15,422 lbs. was returned into store, and condemned as unfit for service.

157. Whose

157. Whose contract was that?—The preserved meats supplied to those vessels were sent in by Cooper, by Gamble, by Cope, by Nichol, by Wells, and by Simkin. *T. T. Grant*, Esq. 23 Feb. 1852.

158. When those canisters which were supplied to the "Erebus" and "Terror" were opened, and the meat found bad, was there any objectionable substance found amongst it?—In the returns from the "Resolute" and the "Assistance" the other day there were two canisters found which contained improper substances.

159. Mr. *Miles*.] At what price was the meat contracted for, for the "Erebus" and "Terror"?—From 7 *d*. to 2 *s*.

160. With a knowledge of the important service for which it was destined?—It was bought specially for the purpose.

161. Admiral *Bowles*.] To what circumstance do you attribute the deterioration of that meat so much sooner than could reasonably have been expected?—In point of fact it is perfectly well known that meat of any description will not decompose, or become putrid or bad under a certain temperature; that is to say, if the temperature is below 32 degrees, putrefactive fermentation will not go on; therefore meat may remain out in the arctic regions for any time without becoming at all decomposed or bad. Accordingly these meats, during the time they were out there, I have no doubt were found to be perfectly good; but on coming into a higher temperature I have no doubt, if there were the least molecule of air contained in the meat, that, by expanding and throwing off its oxygen, would cause putrefactive fermentation immediately to take place. That has been found to be the case in a great many of the returns which have been made from the arctic ships since they returned to this country.

162. Do you find that preserved meats have kept less well in warm climates than in cold ones?—I should say, generally, they would keep much better in cold climates than in hot climates.

163. Do you find that the returns of condemned preserved meat from tropical stations are larger in proportion than from more temperate stations?—I do not think, if the meat is properly preserved, there would be any difference.

164. To what species of defect in the process of preservation do you attribute the increased amount of condemnations in the more tropical stations?—I attribute it to one or two different causes. I think, in the first place, we have ordered the meat to be in whole pieces under our contracts of 1850 and 1851, which is very much against the proper preservation of it, because, unless every particle of air is thrown off,

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or taken from the interior of the meat, directly that meat comes into a high temperature, or into a temperature of a certain heat, between 80° and 90°, if there be the smallest molecule of air in the meat it will expand, and throw off its oxygen, which will cause putrefactive fermentation. Therefore I think, in consequence of putting the meat in large pieces into large canisters, there must be a very great chance of a large proportion of that meat not being properly preserved.

165. How long has the practice of putting up the meat in large pieces prevailed?—In the contracts of 1850 and 1851 it was introduced.

166. Do you impute to that circumstance the accidents which have since taken place?—I impute a great deal to that, and also to the injury which the canisters have been subjected to in moving them about in those large weighty packages. I have no doubt a great deal of meat which has been condemned, is owing to the canisters having become damaged.

167. How long is it since preserved meat has been issued as an article of general food for the navy, instead of being confined to mere medical comforts as before?—I think it was in the year 1847 that we first issued it as a general ration.

168. You had no complaint in 1849?—We had no serious complaint; the first serious complaint appears to have come to us in November 1849.

169. *Chairman.*] By serious you mean a complaint of improper substances being found?—Yes; one canister was found to contain an improper substance, and the contract was put an end to almost immediately afterwards.

170. Mr. *Miles.*] That was a running contract, was not it?—Yes.

171. Subsequently to that another contract was made?—Yes. This one canister which was reported to contain this improper substance was after the delivery of an enormous quantity of meat.

172. Admiral *Bowles.*] What was the date of Goldner's first contract?—1844.

173. He had been going on well from 1844 to 1849?—The condemnations during that period were not greater than the condemnations of other species of provisions.

174. Can you account in any other way, besides the putting up the meat in large pieces, for the failure which took place subsequently?—I think now it is a very bad plan that

that meat should be put up in those large canisters. There are other reasons. The fact is, that the canisters are made of thin iron plate tinned over, which brings it into connexion with a second metal, and then you use a spelter for the purpose of soldering up the seams. Those three metals expand and contract at different rates and at different temperatures; and I have no doubt that from the expansion and contraction a very small aperture takes place in some part of the seam of the canister, the larger canisters in particular, and when once a defect is established there is an end to the meat; because I have myself seen, on looking at several of the canisters, that although there is no convexity apparent at the top or the bottom of the canister, yet I have found on the seam a little exudation, a little moisture coming out, not so large as a pin's head, perhaps; I have had the canister put on one side and exposed to a certain temperature, and that has increased the exudation materially; convexity has taken place; and on the canister being opened, the meat has been found in an incipient state of decomposition. I am quite certain that it is wrong to put up meat in such large packages, and we have taken steps with our present contractors to alter those large-sized canisters, and to have nothing larger than 6 lb. canisters.

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175. They are in future to be all 6 lb. canisters?—Yes.

176. Do you think it would be advisable to prepare all the preserved meats in the Royal Victualling Yards in future?—That is clearly my opinion.

177. Mr. *Yorke*.] Can you account at all for the difference in price between the general contract in 1846 and those for the Arctic ships in 1849 and 1850; the contract in 1846 was at 5 *d*. a pound; has it never struck you that it was almost impossible that a canister of meat could be made up at 5 *d*., so as to be really what it ought to be?—I can only speak from hearsay. I understand that at Galatz you can buy a very fine pair of oxen for something under 3 *l*.; and I have also heard that at certain times of the year the meat itself is almost considered as refuse; oxen are killed for the tallow and the hide.

178. Why did you in 1850 furnish the "Assistance," and the "Resolute," which were going, as you say, to a quarter of the globe where it was cold, and therefore the meat would keep better, with meat of a superior description by special purchase from Cooper and Gamble?—I cannot speak personally to that matter; it was before my time; but I have reason to believe that the meat so procured from Cooper and

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Gamble was a good deal of it roast beef and roast mutton, and the superior parts of the animal; that is to say, parts of the sirloin, and so on.

179. If the regulation by which this description of food was substituted for the old salt junk was to be considered as generally beneficial to the navy, why was it necessary to supply ships going to other quarters with meat at 5*d.*, and to supply those peculiar ships with meat at 7*d.* and 8*d.*, especially since the condemnation of meat supplied under the cheap contracts had gone on at that very time?—The condemnations of preserved meats under the cheap contracts had kept at the same ratio as the condemnations of other kinds of provisions.

180. Sir *F. Baring.*] Is not it the case that the Admiralty has always supplied those Arctic ships with the best possible provisions?—Yes; we are doing that at the present moment. In consultation with Sir Edward Belcher, wherever he has intimated that he thinks the best articles are to be procured, we have made a point of obtaining them from the parties he has recommended.

181. Mr. *Yorke.*] If the great benefit of this improved mode of feeding the sailors of the navy was to arise by the substitution of one class of meat for another, how happens it that the whole fleet, whether it was going to the Arctic Regions or to other places in hot climates, such as Hong Kong or Malta, was not treated alike?—It would have occasioned an enormous expense to have given the whole navy provisions at such a price; the Arctic service has always been considered a peculiar service, and has been provisioned accordingly.

182. Is there no expense incurred by the condemnation of 180,000 lbs., out of so much that was issued?—As the matter now stands, we have funds sufficient to meet the whole of the condemnation.

183. Is it any matter of saving that there should be 180,000 lbs. out of 400,000 lbs. entirely wasted?—I do not think there will be any expense in point of waste.

184. When nearly 200,000 lbs., at 5*d.* per pound, have been thrown overboard, is not an expense occasioned?—The result has been, that we have called upon the contractor to replace all those condemnations.

185. Has the penal condition of Goldner's contract been acted on by the Admiralty, with reference to the supply of 1850, either as regards the principal or the sureties, and what has been the nature of the steps which have been taken?—As

—As soon as we found that there were large condemnations in the office, I considered it my duty to submit to the Admiralty the amount of those condemnations, and to submit that we should make a deduction from the bills then in office to that amount, which they immediately directed should be done. There has, however, been some difficulty about that; because the contractor stated that he did not conceive himself liable to make good any condemnation of that meat unless we could explain to him the cause of the condemnation. He said he believed the condemnations took place from improper treatment of his canisters. A great many had become rusty from salt water, and he stated that he knew it to be the fact that they were thrown about in the hold of the ships, became injured, and the meat then became bad, and he did not conceive himself liable to make good those condemnations. I submitted all this to the Admiralty through the solicitor in the first instance, but we then stopped 875*l.* 7*s.* 5*d.* from the bill of the contractor on the 24th of February, 1851, which was soon after I came into office. That was at that time the full amount for which the contractor was liable. Finding that the condemnations still went on, the Admiralty directed that a bill which subsequently came into office, due to the contractor, should be also stopped, which amounted to 3,201*l.* Under the bond the sureties are bound for a further sum of 3,000*l.* We have reason to believe that one of the bondsmen, at any rate, is a responsible party; that makes altogether a sum of 7,076*l.* 7*s.* 5*d.* The total value of the condemnations on board ships and in store amounts, to the 4th of February when the account was made up, to 6,118*l.* 10*s.* 1*d.*; so that there is a balance in hand to cover losses of 957*l.* 17*s.* 4*d.*

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186. Lord *C. Hamilton.*] Have you proof of the solvency of the surety you speak of?—As far as the solicitor has made inquiry we have reason to believe that the gentleman is perfectly solvent.

187. That is Mr. Quilter?—Yes.

188. Admiral *Bowles.*] Has not it always been the custom, since you have known anything of fitting out Arctic ships, or ships sent on voyages of discovery, to supply them with the very best provisions of every description, without the same regard to expense which is observed in other instances where the sums are larger, and the consequence of the provisions not being so perfectly good would not be so serious?—That has always been the custom certainly. Following up the custom in the present instance, Sir Edward Belcher has

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has appointed an officer to go and see the meat which is to be prepared for them.

189. As it is killed?—Yes, and preserved, and so on; so that he may be perfectly satisfied that the meat is of the very best description, and properly put up.

190. By what conveyance was Goldner's meat sent from Galatz to England?—I believe a large quantity of it was sent by water: he states in one of his letters that the vessel was a very long time on her voyage, and that several canisters were very much indented and bruised.

191. Would those canisters have been received in that state at any of our yards?—During the last twelvemonth, since I have been in my present position, a stringent order has been sent down to say that none of those canisters of Goldner's were to be received, and a great number of them I have reason to believe, were not received even under the contract of 1850 and 1851.

192. Do you think sufficient care is used in the Royal Navy in taking on board and stowing away tin canisters containing preserved meats?—I think the principle has been altogether wrong of stowing them in casks. When they are put into casks, and the casks are rolled down to the wharf, one canister is knocked against the other. This is why the contractor says, "It is necessary for you to prove to me that the injury to this meat has not arisen from your own carelessness. I do not feel, unless you do that, that I am entitled to pay this sum." We have set aside that objection, but I think a great deal of injury does arise to the canisters from the manner in which they are treated after they leave the contractor's hands.

193. Mr. *Yorke*.] You say the contractor complains of the mode in which the articles he supplies have been used after they have been delivered?—Yes.

194. Have you been present at the examination of any of these meats, at Portsmouth or elsewhere?—I was at the examination in May last, at one of the surveys at Deptford Yard.

195. Is it true that garbage of the most filthy description was found in those canisters?—I never saw, except in one instance, which was at Plymouth, I think, any garbage at all, and that was a kidney.

196. Under whose contract was that?—That was under the contract of 1850.

197. The complaint made by Mr. Goldner, as to the mode in

in which he was treated, would not apply to that canister?—No, certainly not. *T. T. Grant, Esq.* 23 Feb. 1852.

198. Sir *F. Baring.*] I see you have returned 327,795 lbs. as the quantity which has been either condemned or returned; can you give the Committee an account of what proportion that bears to the whole quantity issued?—We have not got the whole of our returns in; but, speaking from the returns we have received, the quantities condemned on board ship amount to about five per cent., I think, on the quantity issued from the stores.

199. On the quantity which has been examined?—On the quantity issued from the stores to the present time.

200. I see it is stated that about 95 per cent. of the total quantity issued was found fit for use, therefore the whole that was condemned or returned into store as unfit for use amounted to five per cent.; what do you suppose the proportion to have been of meat which originally ought not to have been put in?—The only account of such description of meat which we have drawn up at present is from the condemnations which have taken place on board ships or in store; it does not amount at the present time to above $\frac{25}{100}$ or one quarter per cent.; that is about the quantity of improper substances which have been found in the canisters condemned on board ship and in the stores; those we have obtained as correct returns.

201. Are you quite sure it is one per cent.?—One quarter per cent up to the latest date. In January I think it did not amount to anything approaching that proportion, but there have been recent condemnations which have increased the quantity to one quarter per cent. of improper meat.

202. Out of the five per cent., four per cent. is good meat, which has become putrid from various causes?—Yes; four and three-quarters per cent. of the quantities condemned on board ships.

203. The one per cent. you suppose to have been meat not fit to have been introduced under the contract?—Yes; one-quarter per cent.

204. What did you mean by calling it offal?—A great quantity was found to contain the heart, and tongue, and palate of the beast; in some instances there have been kidneys, but the proportion of what may be called substances unfit for human food has been very small indeed.

205. Can you tell the Committee, out of the 2,741,000lbs. which have been delivered under Goldner's contract, how many instances of substances which may be termed filthy were

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were found?—I cannot exactly state, but I believe it to be about $\frac{4}{100}$ per cent.; *i. e.*, 2 lbs. in 10,000 lbs.

206. When you speak of one per cent. as being offal, that includes the heart, and tongue, and palate?—No; but it includes all substances unfit for food.

207. Which are contrary to the contract?—Just so; they are not according to the terms of the contract.

208. Have you any reason to believe that the four per cent. of condemned meat was bad meat originally?—No.

209. From your experience, are you satisfied that meat which originally was perfectly well cured and good in itself, has turned out very bad and unwholesome afterwards?—At the examination which took place at Deptford Yard, the captain superintendent there, the officers of the yard, the surgeon of the yard, one of the lieutenants of the flag-ship at Woolwich, the master of the flag-ship at Woolwich, another officer, and myself, were present; and they came to the unanimous opinion that the meat was then perfectly good. The whole of that meat has since been condemned as putrid, and unfit for human food.

210. *Chairman.*] What was the date of that examination? That examination took place in the early part of May 1851.

211. Sir *F. Baring.*] Is there any means, upon the examination of one of those canisters, of being sure whether it will or will not turn out bad?—It is quite impossible. Our present contractors, to whom we are giving a large price for our meat, which is 7½ *d.*, I do believe are conscientious men, and are carrying out their contract in an honourable and faithful manner; but I thought proper to submit that this meat of theirs should be subjected to a test, which the Admiralty acquiesced in, of putting a certain number of those canisters in what we term the drying-room, which is a room over our bakehouse, standing at a temperature of 85° to 90°, for the purpose of testing whether any portion of air was contained in those canisters. The experiment is not quite completed yet, but I am sorry to say a great number of the canisters which have been put under the test, begin already to show a convexity. I went down and opened some canisters the other day, and found that the meat was in an incipient stage of decomposition. When I went down to the Clarence Yard in May 1851, we found the meat then beginning to assume an incipient state of decomposition. A good number of the canisters which I then opened were good and fit for service, and others were partially decomposed. The upper

upper portion of the canister presented a greenish kind of appearance, the centre of it was eatable, and the bottom of the canister quite good. In other canisters the centre of the meat was bad, and the upper portion and lower portion quite good. This was in May. Now the whole of this meat has been opened, and the greatest portion of that meat has become perfectly putrid and stinking; it has come into a pulpy, watery state, and, in point of fact, is perfectly decomposed and rotten. This is the case in all three of our establishments. We find it at Plymouth the same as at the Clarence Yard, and at Deptford.

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212. Do you from reference to the papers know that there was much inquiry before the contract with Goldner was taken; do you remember a letter of Mr. Goldner containing the report of several chemical gentlemen?—Yes. I recollect seeing in the records of the office that Professor Daniel and, I think, Professor Graham, and one or two professional men of high character, were called on to state their opinion, and they stated decidedly that they considered Mr. Goldner's plan of preservation was the best.

213. Professor Brand's opinion was taken, was it not?—Yes. The object has been to give the sailors what may be called whole pieces. They objected to what they called "soup and bouilli;" they did not like it; and it was then proposed in the contract of 1850 and 1851, that the meat should be in whole pieces, and not boiled away in the manner it was accustomed to be under former contracts. The fact is, that this meat turns out of the canister beautifully. I never saw meat look finer in my life, than that does when it is new; but I am quite sure of this, that the meat will not stand the test of climate or of age; we cannot depend upon it. And if we use preserved meats, we must prepare them in the way in which Mr. Goldner and the original manufacturers of preserved meats were in the habit of preserving them formerly, that is, by boiling them so as to be sure of throwing off every molecule of air contained in the interior of the meat.

214. The first important contract for the general supply of the navy was on the 19th of May 1846?—In 1844.

215. That continued down to 1850, did not it?—Yes; in 1850 I think it was put an end to.

216. You were not in office at the time when that contract was entered into, were you?—No.

217. Do you happen to know from the papers that there were communications with different manufacturers for the purpose

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purpose of ascertaining in what mode the meat might be best packed?—Yes, there is a report in the office to that effect in the subsequent contract. The present contractors seemed to say, that they could preserve meat in large canisters as well as in small canisters; but knowing what we now know, I should say that meat packed in that manner is not to be depended on.

218. The size of the canister was diminished at that time, was not it?—The sizes continued to be 6lb., 9lb. and 12lb., I think.

219. Was not the canister strengthened at that time?—There were great complaints of the tin; and I think in the contract there was a special clause as to the strength of the tin. The tin was to be of a certain strength, I think four cross double, as it was called.

220. The contract was a running contract, with a clause for three months' notice, was not it?—Yes.

221. The notice being given, when did the running contract of 1846 practically terminate?—The contract of 1844 practically terminated in 1849. The fact is that there was only one contract made, which was in 1844, and several agreements were made under that contract subsequently to that time; therefore it went on to 1849 in point of fact. There were a great number of agreements made under the contract of 1844, and it was then considered that the contract of 1844 continued till 1849.

222. The three months' notice was given?—It was.

223. Do you know when the new contract first came legally into operation?—It must have come into operation in November, I suppose; I do not know when the first deliveries took place, that year; they could not have been earlier than that, because the orders must have been sent out to Mr. Goldner, and he could not have sent the meat to England before that. It was in November, I think, that the first deliveries were made under the contract of 1850.

224. Can you state to the Committee the quantity of meat supplied by other contractors, and the communications which took place?—I can furnish a statement of the quantities, if required. When we found that a quantity of Goldner's was condemned, the solicitor recommended that we should purchase over his head, obtaining it from other contractors. We took three or four of the most respectable manufacturers in the trade, and we entered into contracts with them each for the supply of 60,000 lbs.; that was about 180,000 lbs. between them; their names were Hogarth, Powell and Gamble.

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A short time after the contract was arranged Mr. Powell requested that we would cancel his contract. He said that he could not supply it, and wished to be released. As he had not signed his contract, we had no help for ourselves, and his contract was cancelled, Mr. Gamble signed his contract, but for a long time did not send in any supplies at all. We wrote to him continually, desiring him to do so, but it was not till the solicitor wrote to him, to say that if he did not send in supplies, as we were in want of meat, proceedings would be taken against him, that he sent any. He then sent in a quantity of meat to the Deptford Victualling Yard, which was found to be very inferior, pulpy and bad, and totally different to the terms of his contract, and it was rejected. He also sent, I believe I am correct in saying, a second quantity, which was likewise rejected. We then found that he could not complete his contract, and the contract was cancelled, but not before the solicitor had recommended that we should purchase over Mr. Gamble's head.

225. Colonel *Chatterton.*] In what year was this?—I am now speaking of 1851.

226. Mr. *Yorke.*] You have assented to the statement which was suggested to you by an honourable Member of the Committee, that 95 per cent. of these preserved meats was good, one per cent. having contained actually bad meat, and four per cent. having been otherwise condemned; can you reconcile that statement with the facts with respect to Goldner's contract of 1850?—We did not know that this quantity was condemned till 1851; the returns were not made into the office till afterwards.

227. Can you reconcile the statement which has been suggested to you of 95 per cent. being good, with the extraordinary statement you have before made, that under the contract of 1850, 183,646 lbs. were condemned and returned as bad, out of 424,752 lbs. which were supplied in that year?—I am taking the whole quantity which had been condemned on board ships up to that date. Of the total quantity issued from the stores there was 95 per cent. found good, and there was about 5 per cent. condemned on board ships.

228. That does not apply to the contract of 1850, does it?—Yes, it does; because it includes a part of the meat which was delivered in under the contract of 1850, as well as a great deal of that previously delivered.

229. It applies to the whole quantity issued?—Yes; a large portion of the 183,646 lbs. was not issued from the stores;

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stores; there was a great deal in store which had not been issued at all. When we found the meat was becoming partially decomposed, we stopped any further issue of the 1850 contract. The 111,000 lbs, which still remained in the Royal William Yard, is part of the contract of 1850. A part which has been condemned at the Clarence Yard also, has never been issued at all; and that is part of the contract of 1850; so that in point of fact there is only a portion of the meat supplied under the contract of 1850 issued, except from the Deptford Victualling Yard. A portion of what has been sent to the Clarence Yard and the Royal William Yard never was issued to ships at all.

230. How is it that out of that issue at Deptford, 22,579 lbs. were condemned?—Simply because in May, when large returns were made from ships paid off, we suspected the meat was not so good as it ought to have been, that it was, in fact, in an incipient state of decomposition, and we would not allow any more of that meat to be issued at all. This quantity was part of the 1850 contracts and other deliveries.

231. How do you attach this quantity so as to make it appear that it was liable to condemnation?—Because there was a certain number of canisters examined, and we know the weight of those canisters.

232. You spoke of those as being condemned?—Yes; that is to say, they were unfit for service; we have never allowed them to be issued.

233. How do you know the meat was bad?—We had a special survey for the purpose of examining it; and we found a portion of it in an incipient state of decomposition, and we condemned it at once.

234. There was a subsisting contract in 1846 which lasted till 1849. Did that contract contain a clause of three months' notice by either party for the purpose of determining it?—Yes, the contract of 1844 did.

235. Was that clause acted on after the discovery in 1849?—Almost immediately.

236. Mr. *Miles*.] Will you refer to page 2 of the paper before you. You will find a return has been moved for of the "Quantities issued since the commencement of the above contracts." The answer is, that the quantities issued have been 2,741,988 lbs. Are the Committee to understand that those are the whole of the quantities under all Goldner's contracts?—They are the whole of the quantities issued from the stores under the whole of Goldner's contracts.

237. You

237. You will find the quantities fit for use stated as follows: "2,613,069 lbs., or 95 per cent. of the total quantity issued, were found fit for use."—Yes.

238. You will immediately afterwards find "Quantities either condemned or returned into store as unfit for use, from any of Her Majesty's stores or ships, whether at home or abroad, 327,795 lbs.;" is that so?—Yes.

239. Will you be kind enough to deduct from 2,741,988 lbs., 327,295 lbs. The remainder will not be 2,613,069 lbs.? —To that remainder should be added the quantity of meat which has been provisionally condemned in our stores, so that it will then make up the whole quantity as stated here.

240. If you will take out that which is unfit for use from the whole quantity, you will find that the sum comes out very differently from the figures here stated, and does not show 2,613,069 fit for use?—I will refer to the paper and correct it, if necessary.

241. You stated that not above one per cent. was found to consist of bad materials?—One-quarter per cent.

242. Not on board ship?—Out of the condemnations which have taken place on board ship there has not been so much as one-quarter per cent. found to be what may be called radically bad and containing improper substances.

243. What do you mean by improper substances?—I mean substances prohibited in the contract.

244. Mr. *Miles.*] Will you look at the Return which has been made, page 3, of the "Quantities either condemned or returned into store as unfit for use from any of Her Majesty's ships, whether at home or abroad." In answer to a question put by Sir Francis Baring, I understood you to say that the returns were only from vessels abroad, and not from the stores? —No; from the stores and ships.

245. So that the whole of that which has been returned into store as unfit for use from any of Her Majesty's stores or ships has not been examined?—The whole of that has not yet been examined.

246. Was the whole of Goldner's contract made up at Galatz?—Yes, in 1850 and 1851.

247. Is he resident there himself?—No one knows where he is at present.

248. Was he there during the contracts?—I have reason to believe that for a large portion of the time he was absent elsewhere; I think I heard he was at Cracow.

249. So

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249. So that he was not himself inspecting the contract when it was being made up?—During a portion of the time, certainly not.

250. I think you stated in a former part of your evidence that gentlemen connected with the victualling department of the Admiralty have in some cases inspected the meat in England before it has been put up?—I said that some of the officers who were attached to one of the Arctic Expeditions had inspected the meat which was then being put up; but whether it was Mr. Goldner's meat, or Mr. Gamble's, or Mr. Powell's, I cannot say. I know they were allowed to inspect it, and did inspect it.

251. The consequence of that is, that the whole of that meat which was put up, in fact, was subjected to a double inspection?—Yes.

252. Could not a similar inspection take place at Galatz?—There was a clause in the contract stating that the Government had permission to send an inspector, with power to inspect the factory or the meat which was then being put up, and directly it was found that the meat would turn out to be bad, they thought proper, through Lord Palmerston, to direct the consul at Galatz to go himself, and personally inspect the factory, and report as to the quality of the meat, and everything connected with it; that report arrived in England subsequently to the contract of 1851 being put an end to.

253. Previously to the meat having been found bad, no inspection took place, notwithstanding the Admiralty had the power of ordering some one to go and inspect?—Not to my knowledge.

254. Mr. *Miles*.] In the case of the Arctic Expedition, was it the officers of that expedition who went to inspect the meat before it was put up, or were they officers from the Admiralty?—The officers belonging to the expedition.

Martis, 16° *die Martii*, 1852.

MEMBERS PRESENT.

Sir William Jolliffe.	Mr. Yorke.
Admiral Bowles.	Mr. Strutt.
Mr. Gwyn.	Mr. Hastie.
Sir Francis Baring.	Admiral Stewart.
Mr. Fordyce.	Mr. Bunbury.
Mr. Miles.	

SIR WILLIAM G. H. JOLLIFFE, BART., IN THE CHAIR.

Thomas Tassell Grant, Esq., called in; and further Examined.

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255. *Chairman.*] YOU said you were present at some of the surveys that had been made with respect to these meats?—Yes.

256. At Deptford particularly?—I was at the surveys at Deptford, and at the preliminary survey at Portsmouth, at Clarence Yard.

257. At what time was that?—That was in May 1851.

258. Was that in consequence of any representations which had been made with respect to the state of the victualling store there?—It was in consequence of our having submitted to the Admiralty that it was desirable to have a special survey on the whole of Goldner's meat then remaining at our different depôts; I thought it desirable to be present at those surveys; I went down consequently to Deptford in May, and was present at the survey that took place at that time.

259. And then at the Clarence Yard?—And then I went to the Clarence Yard, and was present at that survey.

260. You made that representation with respect to the necessity or the desirableness of the survey from reports that had been made to you?—From reports that had been made to the office I thought it desirable, and I submitted to the Admiralty that a special survey should be held on the whole of Goldner's meat then remaining at our different depôts.

261. What was the nature of those reports which made you think it desirable?—We found that condemnations were coming

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coming into the office rather quickly, and having found in one of the first deliveries of Goldner's meat, under the contract of 1851, that offal had been found in that delivery under that contract—that is to say, tongue—I then considered it desirable to bring the whole matter under the consideration of the Board for the purpose of their deciding whether, under the circumstances of the case, it would not be desirable to put an end altogether to the contract, and to any further communication with Mr. Goldner on the subject of preserved meats.

262. Mr. *Gwyn.*] In what state was the meat when you surveyed it?—The preserved meats we saw at Deptford were considered then perfectly good; they were examined in the presence of the officers of the yard, in conjunction with officers from Woolwich Yard.

263. How many canisters were opened?—I think we opened about 25 or 26 canisters altogether at Deptford.

264. Taken at random?—Taken at random; but that meat has since been condemned.

265. *Chairman.*] It was in May that you were also at the Clarence Yard?—Yes, on the preliminary survey there; it was found desirable subsequently to open all the canisters that were in store for the purpose of ascertaining those that were really bad, in order to enable us to sue the contractor for the value of them under the contract.

266. Were any substances that should not have been in the meats found whilst you were at Portsmouth in the Clarence Yard?—I cannot exactly remember that, but to the best of my recollection there was one canister containing either a kidney or part of a tongue, or something of that kind, but nothing beyond that.

267. Sir *F. Baring.*] Was there anything unfit for human food?—Certainly not then.

268. *Chairman.*] Had any report as to the condition of the stores in Clarence Yard reached you at that time?—There was a report made by the officers of the yard, that the store in which this preserved meat was kept was offensive.

269. As early as May 1851?—It was subsequent to May; and there was a report made to that effect by the officers at Clarence Yard.

270. Mr. *Gwyn.*] Where was it worse, at Clarence Yard or at Deptford?—I must admit that as far as I myself perceived, I did not find anything unpleasant at Deptford Yard, or at Portsmouth Yard, nor did I find anything subsequently at Plymouth Yard so far as regards smell.

271. *Chairman.*]

271. *Chairman.*] Were not complaints made of the offensive state of the meats in store, some of which had been issued to sea-going ships, and had been returned to the store?—That was a collection of meats under all the contracts, some of which had been prepared some years, as there was no date upon the canisters. It was not till 1850 that there was any date put upon the canisters. We had no means of ascertaining under what contract meats previous to 1850 were delivered. *T. T. Grant, Esq.* 16 March 1852.

272. Mr. Goldner was allowed at one period to withdraw from the Clarence Yard a very considerable portion of these meats?—Yes.

273 At what period was that?—That must have been in September. In consequence of the meat being condemned, we called upon the contractor to remove the whole of the meat that had been condemned, because without removing the meat we could not sue the contractor for the amount of the value of the meat so condemned. He took away a certain portion; I think about 2,000 and odd canisters; and when we called upon him to remove the others he refused to do so, because his intention was to replace the meat that he took away with other meat; but we had previously come to the determination that we would have no further dealing with Mr. Goldner, and we would not allow him to replace the meat he had taken away with what he termed newer meat. The consequence was that he did not take away any more, and that obliged us, under the recommendation of the solicitor, in order to be able to inflict the full penalty on the contractor, to cause every canister of Mr. Goldner's to be actually examined that he might be charged with all those we found bad; that practice has continued, and still continues in force. We are now pursuing it.

274. Were those 2,000 canisters which he removed of the contract of 1851 or 1850?—I cannot tell that. I recollect that he sent down a man who stated that he could tell the canisters that contained meat that had become putrid; and I understood that every canister in store passed through his hands; he shook the canisters, and if from the sound they seemed to be in a liquid state he put them on one side; those were the 2,000 and odd canisters that he selected to take away. He stated that he considered all the rest of the meat to be good at that time, but that he would not answer that in the course of time it would not become unfit for use.

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275. The Parliamentary Paper to which we referred on the former day states, in page 3, that prior to the formation of the contract in 1850, there had only been three complaints of objectionable substances being found in the meat; and that between the contract of 1850 and the contract of 29th January 1851, there were 11 other complaints, making in all one per cent. upon the whole of the contracts?—I find that it does not amount to anything like one per cent. upon the whole quantity delivered under the several contracts; the return referred to states it to be $\frac{1}{100}$ per cent.

276. The complaints of the improper substances actually made before the last contract in 1851 did not amount to one per cent. upon the whole quantity?—No; they did not amount to one per cent. on anything approaching to it.

277. Sir *F. Baring.*] Can you state what it really was?—I can. I think the question which the Honourable Member put to me was, as to the quantity of filthy substances, that is to say, substances unfit for human food which had been found. We find that of those substances there were 80 canisters, containing a portion of filthy substances.

278. *Chairman.*] Will you now confine yourself to what occurred previously to the last contract on the 29th of January 1851?—In ships there were six canisters that contained heart, and tongue, and kidney, weighing altogether 59 ½ lbs. I am speaking now up to a later date than I did when I was last before the Committee; I have taken the whole that have been reported to me up to the present period.

279. You are taking the whole of the condemned meats on account of containing improper substances up to the present time?—Yes, as nearly as we can; it amounts to 2-100ths per cent., or 2 lbs. in 10,000 lbs. on the quantity delivered by the contractor.

280. Then this return is quite incorrect, which states that the result of all the complaints was one per cent. on the total quantity previously to the contract of 1851?—No, the return is perfectly correct; the condemnations from filthy substances amounted to $\frac{1}{100}$ per cent. up to the period stated in the account. The condemnations in 1850 were not known till after the contract of 1851 was taken. I find the earliest delivery under the contract of 1850 was in November 1850, and therefore it was not probable that we should have issued any of the 1850 meat till January 1851 at the earliest; it was not till after that period that we could have had any condemnations of the 1850 meat. The contract was made in

in May 1850; but as the first delivery was in November 1850, we knew nothing of any condemnations of the 1850 meat till after the contract of 1851 was taken.

281. It is, however, correct, that previously to the contract of 2d May 1850, there had been three complaints of improper substances?—Yes, certainly.

282. And from the 2d of May 1850 till the contract of the 29th of January 1851, there had been 11 complaints of improper substances found in 21 canisters?—I believe that is perfectly correct.

283. Sir *F. Baring.*] But when the additional quantity of meat was obtained in 1851, we had received no complaint of the contract of 1850?—No; this must have been offal found in canisters, which had been delivered under a contract previous to 1850.

284. *Chairman.*] The condemnations of Goldner's meats which were delivered in 1850, had not then commenced, because they had not yet been issued?—The first quantity delivered under the contract of 1850, was in November 1850; therefore it is not probable that we should have issued any of that in that year; I should say not till January or the early part of the year 1851.

285. Sir *F. Baring.*] But when they were delivered into store were they examined?—Yes.

286. That examination had taken place previously to the additional quantity being obtained in 1851?—Yes.

287. Till after that examination there were no complaints of Goldner's meat under the 1850 contract?—Certainly not under the 1850 contract, because they had not been in use.

288. They had passed the examination?—They were examined by the officers and found fit for the service.

289. With regard to whatever quantity was delivered into store, there was no complaint made of the meat supplied under the contract of 1850?—Certainly not.

290. *Chairman.*] But since that period complaints have continued of the meat supplied under the 1850 contract?—I have looked into this matter closely since I was before the Committee on a former day, and I find that a very large portion of the meat that has been condemned in these special surveys, has been meat delivered under contract previous to 1850. I was asked this question, "The actual issue was 424,752 lbs. from those three yards, leaving 75,248 lbs. to be accounted for. Do you know whether they have been issued or not, or whether they are still in store?" In answer to that question, I said, "I fear

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fear I have been misunderstood; when I spoke of the 424,752 lbs., I was not speaking of the issues, I was accounting for the deliveries under that contract by the contractor. I stated, that under that contract 249,410 lbs. was delivered at Deptford, 125,246 lbs. was delivered at Plymouth, and 50,096 lbs. delivered at the Royal Clarence Yard." Then I was asked, "Taking those three deliveries, the whole amount delivered was 424,752 lbs.? Yes." Then the next question was this, "I understood you also to imply that that quantity was issued; you stated that at Deptford 22,579 lbs. were condemned and returned; that 111,108 lbs. was condemned and returned at Plymouth; and 49,959 lbs. at the Clarence Yard. Those must have been quantities condemned out of the issues of 424,752 lbs. to which you referred. How do you account for the difference?" Now, I beg respectfully to state, that these questions allude to two distinct points, viz., meat "condemned" and "returned." I am not aware that in any previous part of my evidence I stated anything about those quantities being returned into store; I merely stated that they had been condemned in store, and my answer to that question is this, that the 22,579 lbs. were condemned at Deptford; the 111,108 lbs. were provisionally condemned at Plymouth; and the 42,959 lbs. at the Clarence Yard. Those were the total quantities condemned at those yards, but as that comprehended a large quantity returned from ships, there are no means of telling whether the whole of that meat was received under the contract of 1850, or under that of 1844. The entire quantity of 424,752 lbs. received into store under the contract of 1850, was never issued from the store, but only a portion of it. Now, on looking over the account, I find that it bears me out in this statement; I find that out of the 22,597 lbs. condemned at the Deptford Yard, there were only 4,343 lbs. under the contract of 1850, and out of the 42,959 lbs. condemned at the Clarence Yard, there were 28,011 lbs. condemned under the contract of 1850. The rest of the meat condemned was all supplied under other contracts, but being without a label it was impossible to tell under what contract it was delivered. The label was put on in 1850 and 1851; I believe at that time inconvenience was experienced on account of the canister not having a label on it, and the authorities then thought it desirable to affix labels on the canisters. That took place under the contract of 1850 and under the contract of 1851.

291. Was the 49,959 lbs. condemned at the Clarence Yard, inclusive

inclusive or exclusive of the 2,000 canisters which Goldner had withdrawn from store? — I should think that the 42,959 lbs. was exclusive of the quantity taken away by the contractor; but both quantities have been charged against him.

292. You state that you find that a large portion of the condemnations did not refer to the contract of 1850?—No, they did not refer to that contract.

293. But complaints of the same kind had continued to be made under all the contracts?—Yes; but I should explain to the Committee that we have received lately some returns in office in consequence of orders which the Admiralty sent out, directing that surveys should be held on the stores of Goldner's meat at the different stations; I have brought one or two of those surveys with me, which may afford some information to the Committee.

294. Mr. *Miles.*] From how many of your victualling stations have you had these returns as to the quality of the meat?—I think we have received them from two or three.

295. Out of seven stations?—Out of all our foreign stations.

296. *Chairman.*] Of course the others have not yet been received?—They have not; the orders as they stand at present, are these: that whenever Goldner's meat is returned from ships, all the canisters are to be sent to one of our victualling yards at home to be opened as they were under the special surveys, for the purpose of charging the contractor with the value of any of them which may be condemned; a quantity was examined the other day from the "Hecla," when paid off; 2,377 lbs. were opened; that was the whole stock that she had on board, and out of that quantity was found serviceable 1,519 lbs., and the quantity condemned, 858 lbs.; there was no portion of it that consisted of parts of animals unfit for human food. Sir Edward Parry states that the 1,519 lbs. found serviceable, was disposed of as follows:—To the families of those belonging to the hospital, and to the poor district at Clay Hall, 287 lbs.; to the workmen of the yard, and a few poor families in the vicinity, 280½ lbs.; to families of seamen and others, 220 lbs.; to families of men belonging to the marine corps, 247½ lbs., and to poor families in their respective districts, 484 lbs.; this was Goldner's meat, with a mark upon it, "Contract 1850." We have also a return, which we got a few day ago from the Cape of Good Hope, in consequence of the orders that were sent out to that station, stating the condition of the preserved meats in store; it stated, "Having

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opened between three and four per cent. of the canisters, which did not appear to be damaged, we found 1,752 lbs. in 208 canisters of eight and nine lbs., painted white and red, good, sweet, and fit for men to eat, and it was accordingly issued to the crew of the 'Castor,' no improper parts having been found. We also found 653 lbs. in 85 canisters, as above, quite putrid, stinking, and unfit for issue; on opening them, we could not detect any improper parts; several of the canisters were more or less damaged, so as to admit air to the contents; the damage to the canisters was occasioned either in packing or by wet, which caused corrosion; in consequence of the offensiveness the meat was thrown into the sea. This survey was discontinued consequent on the receipt of circular No. 95, dated 31 October 1851, and the remains in store, consisting of 13,331 lbs. will be forwarded to England in Her Majesty's steam vessel 'Vulcan.' When we found that it was necessary that the contractor's agent and the sureties should be present at the opening of the canisters, so as to enable the Government to recover from the sureties the value of the canisters, we then directed that no more meat should be opened abroad, but that as opportunities occurred, it should be sent home to one of the home ports, for the purpose of examination.

297. Can you give the total quantity of Goldner's meat, which since the contract of 1850, has been condemned on account of its containing improper substances? — I have already stated all that we know respecting them at present.

298. At the close of your former examination, you stated that an instruction was sent out by Lord Palmerston, directing the consul at Galatz to hold surveys, and to report upon Goldner's factory, and the meat then preparing in it; to whom was that report addressed?—To Lord Palmerston. It was in consequence of an application made by the Admiralty to Lord Palmerston, to call upon the consul at Galatz to inspect the factory of Mr. Goldner at that place, and to make a full report respecting it.

299. And you say that that report was received subsequently to the contract of 1851 being put an end to?—It was.

300. Where is that report now?—We have that report.

301. And that of course can be produced?—Certainly; the Committee will find two or three reports.

302. Mr. *Miles*.] I called your attention during the last examination to what appeared to me to be a difficulty with regard to some of the figures; have you looked over those figures,

figures, and have you altered them?—I have not altered them. *T. T. Grant, Esq.*

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303. Will you be kind enough to state your reason for not doing so?—The 327,795 lbs. shown as unfit for use, include 198,876 lbs. condemned, or provisionally condemned, in the stores. If from the 2,741,988 lbs. issued from the stores, there are deducted the 128,919 lbs. actually condemned on board ships, the remainer will be the quantity "fit for use;" namely, 2,613,069 lbs., or 95 per cent. of the quantity issued. To make up the total quantity of 327,795 lbs. "unfit for use," there must be added to the above 128,919 lbs. condemned on board ships, the 198,876 lbs. which have been condemned, or provisionally condemned, in the stores. The quantity of 128,919 lbs. is the actual quantity that has been condemned on board ship, and that taken from the quantity issued on board ship, leaves the 95 per cent. fit for use. The 198,876 lbs. I call "provisionally condemned," because we have not examined the 111,108 lbs. which remain at Plymouth; we have condemned it, but we have not examined it by opening every canister; therefore we do not know what proportion of that meat is really bad.

304. That is your explanation of the difficulty that appeared in the figures?—Yes.

305. Do you wish from subsequent examination to alter anything which appears in this paper?—No; I wish to give further information relative to the question put by the Honourable Member as to what he termed filthy substances; that is, improper for human food. As far as I have been able to collect them they amount at the present moment to 80 canisters, containing 750 lbs., and that taken upon the whole quantity is 2-100ths per cent. upon the total quantity delivered in by the contractor, or 2 lbs. in 10,000 lbs.

306. That last answer of yours refers to all meats that have been examined in store, and all the reports which you have had from shipboard; can you state what proportion that quantity will bear to the whole quantity supplied by Goldner?—That is the whole quantity of filthy substances contained in the meats supplied by Goldner under all his contracts; we have not found more than 80 canisters containing improper substances unfit for human food.

307. Have you had reports from the different victualling stations, and from all ships that had on board Goldner's meats which they had received from the Admiralty?—No; I am only speaking as far as we have received in office information at the present moment.

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308. Have you the means of telling the Committee what quantities have been subjected to examination out of the whole of the meats that have been supplied by Goldner?—Yes, I can, so far as returns have been received.

309. Will you be kind enough first to state the whole quantities, and then to give us the whole quantities subjected to examination as far as the Admiralty know?—As far as we know, there have been 128,919 lbs. condemned on board ship; besides which there have been 198,876 lbs. condemned, or provisionally condemned, in our stores. Those make up the quantity of 327,795 lbs. which appeared in my original return.

310. Sir *F. Baring.*] How much has been supplied under Goldner's contracts?—The quantity issued is 2,741,988 lbs.

311. Mr. *Miles.*] Is 2,741,988 lbs. the whole quantity of meat that has been supplied in every way by Goldner?—No. The precept only asked for the quantity issued, that is very different from the quantity that has actually been supplied by Goldner under his different contracts; but I will give the Committee that information.

312. Will you be kind enough now to give us the whole quantity supplied by Goldner to the Navy under his different contracts?—The whole quantity that has been delivered in by Goldner amounts to 3,257,795 lbs., of which quantity 2,741,988 lbs. have been issued. There are remaining in our stores abroad 316,931 lbs., and we have condemned, or provisionally condemned in our stores at home at present 198,876 lbs.; which three quantities make up the 3,257,795 lbs. that have been delivered by Goldner.

313. But you have not received from your stores abroad all the returns?—No; there are 316,931 lbs. to be examined at the present moment; that we know nothing about; it may be, and probably is partly consumed.

314. Mr. *Yorke.*] What was the date of Goldner taking away the 2,000 canisters as you described?—That was subsequently to the official survey that took place at Clarence Yard; it was in September 1851.

315. When Goldner took away those canisters, after proving them by shaking as you described, stating at the time that the canisters remaining, although good at that time, would probably become bad, was that fact reported to the Admiralty by anybody, and if so, by whom?—Yes, it was reported to the Admiralty, and upon that, after communications with the solicitors, and the contractor refusing to take away any more canisters, the Board of Admiralty then ordered a special

a special survey to be held on every canister of Goldners' remaining in the different depôts. They directed that every canister should be opened in that survey, and that those which were not good and fit for the service should be charged in order to enable the Government to sue the contractor or the sureties for the value of the meat so condemned.

316. You have stated that the sureties which were entered into by Goldner to perform his contract properly, gave sufficient margin so as to indemnify the Government from any loss?—As far as we have gone at present, we have sufficient funds to cover any loss that has been occasioned to the Government by condemnations.

317. That is as far as the condemnations have gone?—Yes, as far as the condemnations have gone we have got enough in hand at present.

318. You said that 1,500 lbs. were taken from the "Hecla," which were found to be serviceable, and you described afterwards the distribution which was made to different parties. Under what authority was that distribution made?—It was a subject brought under the consideration of the Board of Admiralty how the meat that was found good was to be disposed of. They decided that it would be better to give it away rather than that the meat should be spoiled.

319. Was any good reason given when it was proved to be good why it should not be reissued to the ships?—Because it spoils immediately after it is opened.

320. Sir *F. Baring*.] Why was it not re-issued?—In the first place we do not issue preserved meats to ships in harbour at all; the crew must be 14 days on salt provisions before they become entitled to fresh meat provisions. In the paper I have just read from the Cape of Good Hope, they did issue it to the "Castor" frigate, but I apprehend that the "Castor" was in port at the time of this examination, and the authorities there, not knowing what to do with it, issued it as part of the ration to the seamen of the "Castor," but that was a ship on a foreign station. They could not have issued it in a home port, because the regulation is, that the ships, when in port, the crew are entirely on fresh meat victualling.

321. *Chairman*.] It was necessary that it should be consumed within a certain time?—Yes, it turns bad very shortly.

322. In 48 hours it will turn bad?—Yes, before that.

323. Mr. *Strutt*.] Under any circumstances you could only have issued as much to one ship as could be consumed in one day?—Not more than that.

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324. Sir *F. Baring.*] In allowing Goldner to take away those 2,000 canisters, was there any favour shown him?—No.

325. What advantage could he have got from it?—He could not have got any advantage from it. We did not know what to do with the meat. We could not retain the meat, as we had come to the determination of calling upon the contractors for the value of the canisters; the canisters themselves then became the property of the contractor, his object was, I have no doubt, to force us to throw away those canisters, because then in all probability he would have come forward, and said, "You must now prove to me that those canisters which you have thrown away were not agreeable to the terms of the contract, and that they were canisters containing bad meat." The subject was brought under the consideration of the solicitor, and he said that there was no alternative left but to open every canister, and charge him with those that were bad; if we had given them away, or thrown them away, we could not have sued the contractor for the value of those canisters. I recollect that the solicitor proposed another course. It was supposed that these meats were likely to become infectious, and he suggested that the matter should be brought before the local magistrates to ascertain whether they would indict the department for continuing a nuisance of this description.

326. That was with a view of getting some judicial decision upon the question?—Yes, to enable us to get rid of the meat.

327. For the purpose afterwards of proceeding against the contractor?—Just so. We had charged the contractor with the value of the meat, but we did not know how to get rid of the meat itself, as it then became again his property.

328. If the meat was condemned, the contractor had a right to take it away, and do what he pleased with it?—No doubt; when we charged him with the value of the canisters, the canisters of course became his property; he afterwards sent a man who made us an offer to purchase those canisters. The proposal was submitted to the solicitor, and he said, "You cannot sell those canisters, because if you do the contractor will justly say, You have sold my property, you have no right to do that."

329. It has been represented out of doors that Mr. Goldner got the contract by some influence. From anything that has come to your knowledge in any way, do you believe that Mr. Goldner had the slightest influence, electioneering or

Parliamentary, that could induce the Government to accept his contract?—Nothing of the kind ever came under my notice.

330. Is he a man that has any Parliamentary influence whatever?—I should say not the slightest, because I have hardly been able to meet with any person who seems to know anything about Mr. Goldner.

331. Mr. *Gwyn.*] Where does he live?—It is difficult to say. He has not been in England, I believe, for some considerable time. I believe formerly he had a manufactory in the City, at Houndsditch.

332. Mr. *Yorke.*] You have put in the contracts?—Yes, exact copies of them.

333. Do you know anything of the contracts yourself, from having examined them?—Since I have been in office I have had occasion to refer to the contracts.

334. Is there anything in Goldner's contracts which enables him, in supplying meats under that contract, to take them away if they are found bad, and to replace them by others?—Under that contract, in the event of the meat being rejected as being unfit for the service during five years, he is to be charged with the value of the canisters.

335. Without an alternative permission to replace them by others?—I think not; he wished to replace them

336. Of course, if you had had the care of those canisters, you would have had a *primâ facie* case against Goldner, that he had failed in fulfilling this contract if he made any such application, because, supposing the meat had been all good, there would have been no reason to take it away?—Certainly.

337. You said that he took away 2,000 canisters, after subjecting them to a test of his own; had he any permission to do that?—Yes; we called upon him to take them away, by the direction of the solicitor, because we had provisionally condemned this meat; that is to say, we found it unfit to issue to our men-of-war, and we called upon him to take away the whole of the canisters that were condemned at the Clarence Yard, and also at Deptford, with the view of charging him with the value of the same.

338. But inasmuch as there was no alternative permission in the contract to do such an act as that, is there any likelihood that Goldner had the power of contesting this in a lawsuit with the Admiralty afterwards?—That is a question for the opinion of the solicitor; we have done nothing during the last twelve months, except under his recommendation.

339. You

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339. You have stated that you called upon him, through the solicitor, to take away the meat; was not that to a certain extent a violation of the contract?—I think not; I will not speak positively as to whether there is a permission of that kind in the contract to take them away and replace them by others.

340. Sir *F. Baring*.] What is the practice with regard to these contracts; supposing there is a contract for hemp, and a certain quantity of hemp is rejected, what takes place; do you burn the hemp or do you send it back to the contractor?—I presume he takes it away immediately.

341. His contract is, to supply a certain quantity of hemp under certain conditions?—Yes; I do not know the conditions of the contract as to hemp, but if the meat becomes bad, or unfit for human food during five years, the contractor then is obliged to make good in money, the value of that meat, and I should say of course he is fully justified in taking away the meat that is so condemned; that does not belong to us at all; we could not have charged him with the meat, and have kept it at the same time; the meat was to a certain extent of some value; we had two or three applications to purchase this condemned meat.

342. In the case of hemp, supposing the contractor is bound to send a certain quantity of hemp, and he sends a part, which does not meet the terms of the contract, and which is rejected, in that case is it not constantly the practice that he takes back the hemp which is not accepted, and is obliged to supply other hemp?—Certainly, no doubt about it; he is doubtless obliged to make good the quantity which he has contracted to deliver.

343. Mr. *Yorke*.] Was it the intention of Goldner to supply again the same quantity which had been condemned?—I have no doubt he would have been glad to do it if we had allowed him.

344. In the case of hemp, when that is objected to and taken away, do you allow the contractor to restore the same quantity?—Yes, I presume so.

345. Why did not you, in the case of Goldner, permit him to do that, if that is the usual practice?—Because Goldner had fulfilled his contract as regards the quantity; it was a condemnation subsequent to the delivery.

346. But the question of Sir Francis Baring applied not to quantity but to quality?—The quantity which Goldner had taken away had been previously received into the Government stores, but it subsequently had been condemned

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as unfit for the service; therefore, under the terms of the contract, we were enabled to charge the contractor with the value of this meat, and having called upon him for the value of the meat, that is all that we can do. The meat so condemned was evidently, I conceive, his property, and that was the opinion of the solicitor; he might do with it what he pleased, but he would not take away more than 2,000 and odd canisters; he said, "I hope there will be no difficulty, instead of your charging me with the expense of these canisters, you will allow me to send in meat of a newer or better description."

347. Did he make that offer in writing?—I think he did, and was informed it could not be allowed.

348. If it is the usual practice with regard to hemp, why did not you allow it to be done in this case?—In a contract for hemp, and a contract for preserved meats, the clauses may be different. I am speaking now in perfect ignorance of the clauses contained in the hemp contract, and I am not sure exactly about the clauses contained in the earlier meat contract.

349. Sir *F. Baring*.] Did not this take place after you had told Goldner that you would take no more of his meat?—Yes; we told him we would have no more dealings with him. We cancelled the contract, and refused to take any more meat from him.

350. Mr. *Miles*.] If you refer to page 2 you will find that under the contract of 1850 the meat was to be delivered of the best quality, in canisters of the best tin. In your former evidence, in question 174, you were asked, "Can you account in any way, besides the putting up the meat in large pieces, for the failure which took place subsequently?" Your answer is, "I think it is a very bad plan, now we know what is known, that meat should be put up in those large canisters. There are other reasons; the fact is, the canisters are made of thin iron plate tinned over, which brings it into connection with a second metal, and then you use a spelter for the purpose of soldering up the seams; those three metals expand and contract at different rates and different temperatures;" did that answer of yours apply to this contract of 1850?—It applies to the contract of 1850 and 1851, as regards the large canisters in particular.

351. So that in that respect Goldner did not fulfil the terms of his contract?—Yes, he did in this respect.

352. Was he not obliged, by his contract, to put the meats in canisters of the best tin?—Yes. I do not conceive

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ceive that what I state here shows the inferiority of the tin. I merely state this, that there are three metals coming in contact, all expanding at different temperatures, and consequently an opening is likely to occur in some portion of the seam of those canisters, by expansion and contraction; but the body or substance of the tin itself may be perfectly good and strong. I am bound to say this, that the tin used generally by Goldner is stronger and better than the tin used by other contractors.

353. Then if I conceived that the answer you gave before rather went to show that Goldner had not fulfilled that part of the contract which requires the best tin to be used, I was in error as to that?—I think so, certainly.

354. Sir *F. Baring*.] In point of fact, is it not doubtful whether the very measures which the Government thought desirable to be adopted for the purpose of securing the meat, have not been one of the causes of its injury?—There is no doubt about it. One great cause of the condemnations is from the defect of the canisters. The great defect in the canisters, I believe, is what I have now stated, that we find that in the seam there is an opening in one part or the other, and that has caused, in conjunction with the usage the canisters are subjected to, the decomposition of the meat to a very great extent.

355. Mr. *Hastie*.] Does that arise from the tin plates being stronger and heavier?—It arises, independent of contraction and expansion, from the canisters being knocked about on board ship which they must inevitably be subjected to. The canisters of course become indented, or may be cracked; they come also in contact with salt water, when oxidation takes place, and an opening is then made in the canister. I intended to have brought some canisters here to have shown the Committee, not of Goldner's meat, but of other contractors' meat, where oxidation has taken place from a portion of the canister having come in contact with the salt water, in consequence of which a small aperture was the result; that meat has become putrid, and been condemned as a matter of course.

356. I understood you to say that the tin plates of which the canisters of Goldner were made were stouter than you usually had from other parties? They are quite as good, if not better, than the tin plates which have been used by other parties. Captain Warden, of the "Retribution," states in a report that these canisters were used by the troops for camp kettles when emptied.

357. They

357. They contain the same weight of tin?—They do.

358. Is not it the case that iron is more subject to expansion and contraction than any other metal, than either the tin itself, or the spelter by which it is soldered?—Yes; and these metals expand at different temperatures; that is the cause of the injury. If they were all to expand at the same ratio, I do not think any injury is likely to occur; but from their expanding at different ratios of heat, the injury necessarily takes place in the canisters.

359. Sir *F. Baring.*] Generally speaking, although there have been condemnations in all the stations, have not the principal complaints come from stations where they have been in very great heat, or where they have been in very cold regions, and then afterwards exposed to warm climates?—It has been invariably the case with the meat supplied to the Arctic ships. In one instance we found it different, but generally speaking, we have found that meat that is perfectly good in the Arctic regions, on being subjected subsequently to the temperature of this climate has become bad in a short space of time afterwards; that has been the fact not only in the last expedition, but in former expeditions.

360. Mr. *Yorke.*] Do you think, after your experience, that this is a good way of getting fresh meat for the Navy?—My private opinion is, certainly not.

361. Admiral *Stewart.*] But you would not give it up as a comfort for the sick?—I think it is a most desirable thing for the comfort of all the men, as well as for the sick, that they should be supplied with preserved meats. I think it is the greatest boon that was ever given to the seamen, and the men feel it as such when the meat is really good.

362. But to insure that will it not be necessary probably to have recourse to the former mode of preserving the meat more expensively in smaller portions?—There are one or two ways of doing it. I am quite convinced that the system we have adopted, which was done from proper motives certainly, of putting the meat in larger pieces and in larger canisters is a bad plan, because we cannot insure the proper preservation of the meat, therefore it is highly desirable that if meat is supplied in future, it should be put up in smaller packages than has been adopted in the last contracts. But at the same time I think, as it is an article which we cannot ascertain by inspection whether it is good and proper in every respect, it would be very desirable that we should manufacture it and put it up ourselves in one of our own establishments.

363. *Chairman.*] You are aware of the terms of the contract

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tract with Goldner, namely, that the contractor is to give timely notice to the said Commissioners, in writing, of the periods when and the places where he intends to commence preserving meat to be supplied under his contract in order that if they think it necessary they may send an inspector to his factory to ascertain that the process is conducted in every respect in accordance with its conditions. You are aware that those are the terms of the contract?—Yes.

364. Did not it strike you to be extremely inconvenient under such a contract as that, that the contractor's factory should be so far from the Admiralty as Galatz?—It appears to me to have been evidently the intention of the Government by going to Galatz to get the meat cheaper than they could procure it in England; there is no doubt that the meat contracted for by Goldner was cheaper than it could have been procured in this country; that was the object that induced the Government to go to Galatz.

365. But it is evident that it would be excessively inconvenient to hold such a survey as that which the contract contemplated when the factory at which the meat was prepared was at Galatz, in Moldavia?—No doubt it was very inconvenient, its being so far off from this country.

366. Was it not almost impossible that such a survey as that contemplated in the contract should be held?—It might have been done, as it has been done latterly, by calling upon the consul at Galatz to inspect the factory and to report fully upon the subject. In the contracts we have taken in 1851 the Admiralty thought proper to direct an inspector to visit all the private manufactories of preserved meats of those individuals that have entered into contract with us. They have sent responsible officers to inspect and report to them everything connected with those manufactories, both as to the manner of putting up the meat and the quality of the meat which was under preparation for Government service.

367. Mr. *Miles.*] Were those reports in writing?—Yes.

368. *Chairman.*] Were those contracts of 1851 taken by persons in this country or abroad?—By persons in this country.

369. You think that by doing that the Admiralty adopted the next best course to manufacturing the meats themselves?—I do not think the Admiralty ever gave an opinion upon that subject; but they decidedly thought it desirable that those manufactories should be inspected by Government officers, and they directed Government officers to inspect and report to them everything connected with those manufactories.

370. Admiral *Bowles.*] Was there, in point of fact, any inspection at Galatz?—I am not aware whether there was any inspection at Galatz previously to the examinations I have mentioned in the case of the consul.

371. Are there any reports from the consul?—Yes.

372. Mr. *Yorke.*] Is there any contract for preserved meats to be issued to the Navy under process of completion?—Yes, several.

373. Has the defect in the canisters to which you have alluded, been pointed out to those new contractors?—It has.

374. What change has been made in the nature of the metal used, or what means are they required to adopt in order to remedy the inconvenience which experience has shown to arise from the metal hitherto used?—We have called their attention to the necessity of having the very best material used in the construction of their canisters; and we have also made arrangements with them to do away with the 9 lbs. and 12 lbs. canisters, and in future to complete their contracts with 6 lbs. canisters; the canisters then will not be so liable to injury.

375. You have stated that the contract was that the best tin should be used, but it appears that experience has shown that tin, iron, and solder together make a very insecure covering for the preserved meats, whatever may be the weight inside; have you attempted to alter that by applying any other metal?—That has been under consideration; I know that there have been one or two propositions made relative to using other canisters. One individual proposed zinc, a mixed metal, and the canister to be cast instead of being soldered; but nothing has been decided on that subject.

376. Has earthenware ever been suggested?—I do not think earthenware has ever been suggested.

377. Mr. *Gwyn.*] What would be the saving in price of having the meat manufactured in Galatz, as compared with the expense in this country?—In our recent contract we have taken the meat at a much higher price than we paid Goldner; our present contractor's price, I think, is 7½ *d.* a pound.

378. What was Goldner's price?—I think 4 ¾ *d.* to 5 ⅛ *d.*

379. Sir *F. Baring.*] Would there be any difficulty in having an inspector at Galatz any more than at Cork?—No.

380. When you have foreign contracts for timber, have you not an inspector of timber at the spot; for example, in Italy; and does not he inspect the timber there just as any man here would?—Yes.

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381. Mr. *Miles.*] But you have not an inspector of provisions at Galatz at present?—Not at Galatz.

382. You have the power in England of sending your own inspector wherever you please to inspect the factories?—Yes.

383. Sir *F. Baring.*] Was there ever any inspection under the Board of Admiralty of any of these factories, till these complaints?—Never at Galatz.

384. Or in this country?—I am not aware of any, except with regard to the Arctic ships; one or two of the officers of the ships went down and saw some of the meat put up in the canisters, which they intended to take with them.

385. Do you happen to recollect that in the early part of these contracts, this preserved meat was supplied without even a canister of it being opened?—I think I met with it amongst the records in the office, that the officers at Deptford Yard put the question to the then Board what quantity of canisters they should open.

386. Did not they suggest that some should be opened?—They did suggest whether some should not be opened; and the answer given by the Admiralty was, that they thought that one canister out of a delivery should be opened; but I think the officers then suggested that they might be allowed to open a larger portion, so as to satisfy them as to the general quality and goodness of the meat, and in the subsequent contracts they were authorized to open as many as they thought proper.

387. In the early contracts for provisions there was a condition at a certain period that they should be British cured. Was that ever a condition with regard to preserved meats?—Yes, I think I met with it in the 1850 contract. I think it is in the paper which the Committee have called for; it is a statement by the Admiralty at the time that they would only accept a man's tender upon his proving in a satisfactory manner to the Board that his meat would be manufactured in the United Kingdom.

388. *Chairman.*] Was that one of Goldner's contracts?—I think it is in the treaty paper of the 1850 contract.

389. Sir *F. Baring.*] My question referred to the earlier contracts?—No, I do not think there was anything of that sort in the earlier contracts.

390. *Chairman.*] Was not the stipulation that the meat should be manufactured in the United Kingdom a proposal of Mr. Ritchie's?—No; it was proposed to him by the Admiralty.

391. But

391. But Mr. Ritchie was supposed to be an agent of Mr. Goldner?—He was. *T. T. Grant, Esq.*

392. And it was at a time when you did not choose to have a contract by the same person in two different names?—It was found that Mr. Ritchie was an agent of Mr. Goldner, and the Board then decided that it would not be desirable to take a contract with Mr. Ritchie. They suspected, I suppose, that he was in connexion with Goldner, and they would not enter into that heavy contract with Ritchie, unless he would bind himself to manufacture the meat in this country, and so ensure its being distinct from Goldner. 16 March 1852.

393. Can you state at what period those terms to which I have called your attention were introduced into the contracts, with regard to the inspection of the meat during the process of preparation?—I think you will find it in the 1844, 1850 and 1851 contracts.

394. Mr. *Yorke.*] Have you ever expressed your opinion to the Admiralty that it was a bad plan for these preserved meats to be obtained in this manner?—I have submitted for the consideration of the Admiralty, that it would be desirable to manufacture these meats ourselves instead of going to a contractor for them.

395. Was anything done in consequence?—I do not think it was decided on previously to the late Government leaving office.

396. In any letter that you have sent to the Admiralty, or any minute that you have made, have you ever declared your opinion with regard to that question as decidedly as you have now?—I have submitted to the Board for their consideration, that it would be desirable to manufacture these things ourselves instead of going to a contractor for them, in consequence of the impossibility of being satisfied, under the present system, that the meat is in every respect what it ought to be.

397. Do you know whether any fresh contract has been entered into since you gave that counsel?—I think there has been a contract entered into.

398. Do you know to what extent?—I think the last contract, which I believe was in December, with Hogarth, has been entered into since that period.

399. Do you know at all what quantity of pounds are now under course of manufacture to fulfil any contract?—I should think we have about 400,000 lbs. that are not yet delivered.

400. At how much a pound?—I think there are two con-

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tracts under delivery at the present moment, one in the name of Moir, and the other in the name of Hogarth; the one at 6½ *d.* or 6¾ *d.*, and the other at 7½ *d.*

401. Sir *F. Baring.*] When the last contract was entered into, even supposing that the Admiralty had adopted your opinion, and given up the system of contract, and had taken to the plan of manufacturing their own meat, would it not have been necessary, with reference to the state of the supply of preserved meat, still to have made that contract?—Yes.

402. Consequently, whatever course they had pursued in future, it would have been necessary to have made that contract at that time?—It would have been necessary to enter into the last contract most decidedly, to keep up the necessary supply of preserved meat for those stations to which we now issue it.

403. Mr. *Yorke.*] You must have contracted for the supply of the raw materials, but the manufacture would have taken place by your own people?—Yes, but we could not have established a manufactory in time.

404. Sir *F. Baring.*] Supposing the Board of Admiralty had determined when your suggestion was made, to manufacture their preserved meat themselves instead of getting it by contract, would it not still have been necessary for the purpose of keeping up our stores, to have a supply of preserved meat before our own manufacture could have come into operation?—Most certainly; we have great difficulty at the present moment in supplying the quantity that is required even now.

405. Mr. *Fordyce.*] Are vegetables supplied in the Navy at all?—Only as fresh vegetables in port; we do not send any on board ship, except to the Arctic ships; we did supply, till latterly, preserved potato, but latterly we have thought proper to discontinue it on account of the heavy condemnations that took place, particularly in the Tropics; the potatoe will not keep there, and the loss is very great. We supply rice instead; the preserved potato is an excellent article of food for the seamen while it remains good; the seamen are very fond of it, but we cannot depend upon it.

406. Are you aware whether the art of preserving meat is carried to greater perfection in France, or any other country, than this?—I am not aware whether it is carried on to greater perfection; I have a sheep that has been preserved by a French individual, and which was sent to the Admiralty some short time since, and which has been preserved, I believe, about two years; it has not been examined; but it has

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has every appearance of being good, inasmuch as the large canister which contains it retains its concave form and appearance.

407. Admiral *Bowles.*] A whole sheep?—Yes; he wishes to introduce preserved meats in that shape.

408. Sir *F. Baring.*] Do you know with regard to the Yacht Club whether they give preference to meat preserved in France or in England?—I never heard. I have a letter, which is very interesting as far as regards Goldner's meat that was supplied to some of the Arctic ships, from a captain of the name of Pullen, who was on board the "Plover," in one of the Arctic expeditions. He writes to the Secretary of the Admiralty, "I have the honour to acknowledge the receipt of your letter of the 20th instant, wherein I am commanded by their Lordships to report on the preserved meats of the 'Plover.' During the 10 days I was on board, I only recollect two cases having been brought on the quarter-deck for survey; they were examined and found unfit for use, and therefore thrown overboard; but I considered it only an unavoidable circumstance, happening from some defect in the canister, which might have been caused by a fall. On leaving the 'Plover,' I had in the four boats 25 men, each man victualled for 70 days, the greatest part of the meat was preserved, and many of the tins much battered; nevertheless I never had occasion to throw any away. When I sent the large boats back, I filled up my small ones to 96 days' provision for each of my party (14, all told); again the greatest part of the meat was preserved, and I am sure I may safely say better I never ate; and most certainly if any of it had been tainted in the slightest degree we should have found it out, for on the latter part of our first expedition (namely, from the 'Plover' to Fort Simpson), or for a period of nearly two months, we were reduced to the preserved meat alone, from the sad loss of all our bread, by having to throw so much overboard for self preservation. Again, before the 'Plover' left Plymouth, I dined on board; the fare was preserved meat, and I recollect a remark being made by several at the table (naval men, too), of how very good the meat was."

409. What meat does he refer to?—Those are Goldner's meat; he does not state that, but on referring to the precept, I find that the "Plover" was supplied with meat of a superior description and quality, obtained from Goldner by special purchases.

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410. Mr. *Yorke.*] What was the price per pound?—Eightpence or 1 *s.* a pound was given for that.

411. *Chairman.*] The meat to which that letter refers was of superior quality, contracted for at a much higher price?—Yes.

412. Mr. *Miles.*] Considering what we know now, and particularly after reading that letter, do you think with reference to preserved meats, that it is right hereafter, supposing the contract system to be still carried on, that the lowest tender should be taken?—I think decidedly not, knowing what we do now. The Admiralty have thought proper to alter the system since 1850; since I have been in London the Admiralty have thought proper to buy all those meats by sample. You will find that in the contracts which have been taken in 1851, the Board caused samples to be sent in by tender from each individual; those samples were opened in the presence of a portion of the Board by an officer from Deptford and myself, and also by either the Director-general of the Medical Department of the Navy or his assistant, and each canister was particularly examined, and it was then decided to take such and such canisters which were thought best suited for the service; and in some instances it will be found we have not taken the cheapest meat. We have taken meat of superior quality at a higher price, and the result is the meat now delivered under our present contracts is generally of a very superior description in point of quality; it is remarkably fine meat in every respect. I stated when I was before the Committee the other day, that I had fear that the meat would not turn out so good as I had expected, by which I mean that it would be liable to decomposition; but since that period I have caused inquiries to be made, and I find that very few canisters indeed have presented the least appearance of decomposition, that is to say, no convexity has appeared in the canisters; therefore I trust and hope that the meat now delivered under these contracts will turn out in every respect satisfactory.

413. This new system of samples seems to look forward a year after to an inspection, does it not?—The Admiralty thought it desirable to adopt this plan, of having samples sent in, so that they should really know the description of meat which they intended to buy; because one man wrote to say he wished to know what quality of meat we required to have, as he could supply samples at different prices of different qualities, and that although all were good serviceable

able meat, yet some was better than others. He sent in some samples of that description, and he explained to us the difference there was in the meat; what part of the beast it was taken from; one, I think, at 5 *d.* a pound contained what they call shins of beef, and that part of the animal; that at 6 *d.* a pound contained other portions of the beast, but not the prime parts; but that at 7 *d.* or 7 ½ *d.* a pound contained the very best portions of it; that is to say, the rounds and sirloins and brisket of beef, all the better parts of the animal. The Admiralty upon that decided upon buying that description of meat, and entered into a contract with him for that kind of meat.

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414. Do you recollect how he termed the different descriptions of beef; were there any particular terms given, "ordinary," "middling," and so on, to the different samples he sent in?—No; we advertised, I think, for meat of the best description; but this was merely a private communication from the individual, a letter written by him, asking what description of meat the Admiralty would wish to receive of the three different qualities of meat that he was in the habit of selling, and that it was desirable to know whether they would take this description or the other; and he sent in samples of different priced meats; all very good; every bit of it was eatable; but the Admiralty thought it desirable to take the very best meat; and a contract was entered into with him for that purpose.

415. The samples sent in were for the inspection of the Admiralty before entering into the contract?—Yes; it was merely to enable them to ascertain whether it was desirable to give, say, 7 *d.* a pound for this description of meat, or only 5 *d.* for the other description; and the officers that were to examine the meat were present to see the description of meat that the Admiralty decided upon having. In this contract in 1851 you will find that the law laid down is very strict indeed: the meat is to contain rounds, and briskets, and the sirloin; no inferior part of the meat whatever; that is to say, no shin part or neck part. The contractor is bound down strictly to the best part; and the consequence is that we have now none but the very finest description of meat; there could not possibly be finer.

416. Mr. *Yorke.*] When you speak of preserved meats, is there any mode of preservation adopted beyond that of perfectly securing the package so as to exclude the air?—There have been several attempts made of seasoning the meat. Some contractors use salt; but I believe it is generally considered

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sidered that it is not desirable to introduce salt into the meat, inasmuch as if there is the smallest portion of air contained in the canister the salt will tend, rather than otherwise, to decompose the meat.

417. Then the means of preservation consists merely in making the package secure, so as to exclude the air?—There is no question that if the air is entirely expelled from the canister the meat will keep an unlimited time. I myself made an experiment, 14 years ago, on this subject, and it was only the last summer that by chance I found some of those canisters, and I opened them, and found the meat perfectly good. It was done in conjunction with the present Governor of Malta, but then we took very great pains in expelling the air from the canisters, and the success was perfect.

418. *Chairman.*] You say that you took great pains in expelling the air from the canisters; are you well acquainted with the process by which that is done?—Quite.

419. Are there not two or three processes for the purpose?—There are two or three processes.

420. Was not Goldner's process supposed to be very good?—I should say, that if Goldner's process is carried out fairly and properly, it is the best process, inasmuch as he gets a certain heat upon the canister, which he does by what is called a lime-bath, not by the influence of fire; and therefore the process is gradual, and you can pass off the steam at a temperature of 218° or 219°; you never get any strong evaporation. It is better than using boiling water, because that is apt to open the seam, and to injure the canister; but by his process I do not think you can get the heat above 218° or 219°, which is quite enough to pass off the steam without injuring the canister; but in manufacturing the large quantities of 500,000 lbs., or a million of pounds of meat, it is morally impossible for sufficient attention to be paid to passing off the air from each canister. Generally we oblige the contractors to send in their meat by a certain day, and they have not time, in all instances, to pay that attention to expelling the air which they ought to do.

421. Mr. *Miles.*] After the manufacturing the meat in the way you describe by Goldner, does he then subject it to a heated room?—I believe he does subject it to a heated room. I know that the present manufacturers do. The Admiralty have directed, as an experiment, that the meat that is delivered under the present contract should be subjected to a heated room of a temperature of 80° or 90°; the

canisters

canisters are to be kept in this room for three weeks or a month, and then, if any indication takes place of any alteration in the form of the canister, they are to be put on one side, and not to be issued to any ships; that no canister which has any such appearance should on any account be issued to ships; that it should be set aside altogether. *T. T. Grant, Esq.* 16 March 1852.

422. From the experience that you have had of what the heated room produces at the Admiralty, do you think that hereafter all preserved meats should be subjected, after manufacture, for about a fortnight or three weeks to a heated room?—Most certainly.

423. Have you ever seen any manufactory of preserved meats in which, after the meat has been soldered down, after the whole of the air has been supposed to be expelled, it has been tried by an awl driven into the case, so as to see whether any air remains in the canister?—I have never seen the process myself in a private manufactory, but I understand that each manufactory is provided with what they call a testing-room, heated by steam, for the purpose of testing the canisters previously to their being issued either for the consumption of the Navy or for private trade.

424. *Chairman.*] You have spoken of Goldner's process, and you stated that at present there is a contract current with a person of the name of Hogarth; his process is not exactly the same as Goldner's, is it?—I do not think it is exactly the same; I have never seen his process; he is rather tenacious, I fancy, his process should not be known; but it is in principle the same as Goldner's, but there is some little deviation. I fancy that he does not use the lime bath, which Goldner does. I think he brings his canisters under the influence of steam at once; that is to say, he places them in boilers under a certain pressure of steam, and he passes off the air from the canisters without any other process. I think there is some difference of that kind. I have doubted whether that process is altogether so completely to be depended upon as the process formerly used by other contractors as well as Goldner. I believe the original contractors always passed off the steam in nearly the same way as Goldner now does, but then they had the advantage of smaller canisters.

425. But from the inquiries which you have recently made, are those doubts of the process somewhat less strong in your mind than they were before?—I do not know that I am justified in saying that; as regards Goldner's canisters they appear to be unexceptionable in point of quality. I do

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do not know that I ever saw a defect arising from the tin of Goldner's canisters; where there was a defect, it was either from indentation, or from the seams having given way, perhaps from the cause that I have mentioned, the expansion and contraction.

426. Therefore the failures you attribute more to the canisters than to any defect in the process?—It may have been from the air not having been entirely expelled from the canister, or it may have been from the canisters themselves having become injured by being knocked about; or it may have been from the expansion and contraction from the metal's expanding under different ratios of heat.

427. Admiral *Stewart.*] Are you aware that a great deal of preserved meat is used by emigrant ships now?—Yes, there is a great deal used by emigrant ships.

428. And very little of it is complained of, or found defective?—I have not heard any complaint of it. Emigrant ships use it to a certain extent; to what extent I am not prepared to say, but I believe that Ritchie, who was Goldner's agent in this country, supplies large quantities of it to emigrant ships.

429. The consumption of it in emigrant ships must be immediate, or at least within a limited period?—The meat must be consumed during the passage out to the port to which the vessel is bound; of course they only take out a sufficient supply of meat for the emigrants during the passage, they do not leave it there.

430. Mr. *Miles.*] I wish now to call your attention to page 5, in the Return which relates to salt meats. I find from that Return that, as far as beef is concerned, in the years 1849 and 1850 there was no contract whatever; what was the reason of that?—I think the Admiralty at that time had determined to issue two days' preserved meats to the crews of different ships; the consequence was, that there was no occasion to go to contract in those years for a further supply of salt meat; it was considered that they had sufficient meat in store without purchasing other quantities.

431. Can you inform the Committee of the quantities of salt meat in store at the expiration of the year 1848?—I can, by reference to the papers, do so.

432. A Return has been laid before the Committee relative to vessels on the West India station, since which another column has been appended, giving the regulated allowance of salt provisions issued to the crews of ships on the West India station, and showing the total quantities which were issued

issued in extras to make up the regulated allowance, and also that which was thrown overboard, and that which was sold on Her Majesty's account; how do you account for the extraordinary quantity that seems, in some instances (I will mention, for instance, the "Alarm") to have been issued to make up the regulated allowance, together with that which was thrown overboard, and sold on Her Majesty's account. Taking the regulated allowance at 6,527 lbs., I find that the extra issue, together with that thrown overboard, and that sold on Her Majesty's account, amounted to 5,684 lbs., or nearly double that which was necessary; how do you account for that?— There was a complaint of the salt meat issued on that station to the "Alarm," which was received during the year, they complained of the shrinkage in the boiling; I have before me the whole of the papers connected with this subject, and I can, if the Committee wish it, go into the detail of the explanation. This is the complaint that was made: "Her Majesty's ship 'Alarm,' at sea, 8th November 1851; Sir, the salt meat issued to the crew of Her Majesty's ship 'Alarm,' invariably weighing considerably less than half its original weight after boiling, more particularly the beef, four pound pieces of which seldom weigh more than from one pound two ounces to one pound and a quarter; one piece yesterday, with two bones in it, actually only weighing nine ounces, as noted in the log; I consider it my duty to represent the same to you in writing, as these daily demands for extra issues of salt meat to make up deficiencies tend greatly to diminish the number of days for which the ship was originally victualled; at the same time, I beg leave to state to you, that every care being taken not to boil the meat longer than is absolutely necessary, the surveying officers, the senior lieutenant and master, are of opinion that this enormous shrinkage is attributable to the old and inferior quality of the meat; the beef we are at present using is dated October 1847, and was received from Halifax Victualling Depôt, on the 15th day of September 1851; the pork was examined January 1850, and received from Jamaica Victualling Depôt on the 28th day of February 1851. I beg leave to inclose you a statement of the deficiencies between the 1st day of October and the date hereof. I have, &c. (signed) *C. A. Thorne*, Paymaster and Purser." Addressed to "Captain Geo. Ramsay, H. M. S. 'Alarm.'" He then gives a description of the quantity that was issued, and the weight of the meat after it had been boiled; but with regard to this meat supplied to the "Alarm," as is stated here, it must have been very old meat, which

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which had been left in the depôt in Halifax Yard, and had been subject to a tropical climate for a considerable time; and we find that under those circumstances meat will lose at least one-half, and even more than that, from being exposed to the climate, and being subject to the influence of the pickle; the earliest complaint, so far as I have been able to ascertain, that was made upon this subject, was in 1788, in that year there were several complaints made by the seamen of the different ships, of the shrinkage of the meat after boiling, and the Admiralty of the day directed that experiments should be made at the Deptford Yard for the purpose of ascertaining what the loss in the meat was at different times and at different ages; and I find from the report that was then made, that meat which was only cured a few days lost a third in weight, and according to the time that it remained in pickle it lost in proportion. In curing meat, in rubbing in the salt and saltpetre and so forth, you will find that after it has been subject to the process for 24 hours a considerable exudation of the juices of the meat will be caused by the pickle; the pickle expels the juices of the meat, and this continues to go on till the brine has actually inserted itself into the very core of the meat. When the meat then comes to be boiled, of course the water extracts the brine, and the meat comes out at a proportionally less weight. That has been invariably found to be the case, and in point of fact there is no doubt on the subject. I have here a statement of different experiments which have been made for the purpose of ascertaining what meat did really lose. According to the present regulation, whenever the meat loses one-half in boiling the men are supplied with an additional half pound. Now we find that that is subject to very great abuse; in the first place, the object of the cook is to boil away the meat as much as possible because he obtains a larger quantity of what is termed slush, for which he is paid, and in some ships he is paid a very large amount; he is sometimes paid as much as 125 *l.* and 150 *l.* for his slush. On the other hand the seaman if he finds the meat boils away to half a pound claims the additional half pound; but in fact he does not take up this half pound, he saves it, and is actually paid at the rate of 4 *d.* a pound for it; and the result is, that during the last two years we find that we have paid the seamen upwards of 50,000 *l.* for their savings in salt meat alone, including a portion of such extra issues, showing that they really did not want the meat, for they have saved it; and that is increasing

creasing gradually. On the one hand it is the object of the cook to boil away the meat as much as possible, because he gets paid for his slush, and the seamen do not complain, because, according to the liberal arrangement of the Admiralty they give them another half pound; but the man does not take up the half pound, but keeps it, and we have paid, according to the accounts which have passed through the office in 1850 and 1851, upwards of 50,000*l.* for savings in salt meat alone, showing that the men really do not require it. By the regulation that was made two years ago, relative to rum, there was a new system of rations issued to the seamen, and amongst other boons the Admiralty, instead of three quarters of a pound, gave them a pound of meat, but the former order which allowed the seamen to have half as much meat again when he was supplied with three quarters of a pound, still held in force with regard to his pound of meat; so that in point of fact, the issues of meat to the seamen decidedly have been much greater during the last two years than they were formerly: and that accounts in a great measure for the issues of meat to the "Alarm;" there has been this extra quantity issued to the "Alarm" principally on account of the difference in the rations between three quarters of a pound and one pound.

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433. Would not that have affected all the vessels on the same station equally?—We find that the demands for extra supplies of salt meat are increasing daily; both the cook and the seamen find it so much to their interest to boil away the meat, and then seek to get paid for it, that they take care, so at least it would appear, that the meat does boil away one-half.

434. Mr. *Yorke.*] Your answer would imply that there is a combination for the purpose?—It is the interest of both parties now to do that. It was brought under the consideration of the late Board of Admiralty previous to their leaving office, and I have reason to believe that they had come to a determination to make an alteration in that respect; and in the new instructions that were to be drawn up for the paymasters and pursers of the Navy, that this was to be one of the alterations to be introduced.

435. Mr. *Miles.*] In reference to the information you have given us now, the column of the extra issues, to make up the regulated allowance, would rather bear you out in what you state?—It would tend to bear me out. The reason why they have had a larger quantity for the "Alarm" than for other ships is what I have mentioned; it appears that this

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this must have been old meat, which had been subjected to the influence of the Tropics for two or three years previous to its being issued to the "Alarm," and therefore I have no doubt that the whole of the juices of the meat had been extracted from it, and that it would lose weight most considerably. We find that in 1788 trials were made upon this subject, and it was found that the loss was just as great as at present. I have also pamphlets which were published by Mr. Cooper, and by Messrs Donkin, Hall and Gamble, the original preserved meat people, in which they state, that on careful experiments the loss of the meat is exactly that which bears out the various experiments that we have made. They say, "The first experiment was made on the 27th of May 1813, on a 56 lbs. keg of captain's beef, which had been about a month in pickle, weighing 56 lbs. It was then boiled by steam, and the bones were carefully separated. The meat was suffered to cool, and it was then found to weigh 35 lbs., deficiency 21 lbs.; being, viz., bones 5 lbs. 6 oz.; waste in boiling, 15 lbs. 10 oz.: total 21 lbs., being about 40 per cent. loss. The second experiment was made on the 24th of July 1813 on half a barrel of prime mess beef, weighing 100 lbs. net, which was salted in October 1812. On weighing the same prior to cooking it was 103 lbs. It is presumed this increase of 3 lbs, arose from the meat being saturated with the pickle. It was then boiled, as in the foregoing experiment, the bones carefully separated, and the meat suffered to cool, and it was then found to weigh 47 lbs. 8 oz., deficiency 52 lbs. 8 oz.; being, viz., bones, 9 lbs. 10 oz.; waste in cooking, 42 lbs. 14 oz.: total, 52 lbs. 8 oz., being more than one-half loss. The third experiment was made on the 10th of August 1813, on a barrel of mess beef, containing 26 pieces of 8 lbs. each, being 208 lbs. On reweighing the same it was 213 lbs. This gain of 5 lbs., of course, proceeded from the same cause as above. It was then boiled, and the bones carefully separated, as in the foregoing experiments, and the meat suffered to cool: it was then found to weigh 103 lbs. 10 oz., deficiency 104 lbs. 6 oz; being, viz., bones, 13 lbs. 8 oz; waste in boiling, 90 lbs. 14 oz.: total, 104 lbs. 6 oz., being rather more than 50 per cent. loss." The experiments here given bear out exactly the experiments which have been tried from 1788 down to the present time as to the loss in boiling, and it appears to depend entirely upon the time that the meat is subject to the influence of the pickle.

436. From any return you have had from the "Alarm," are you enabled to state what was the age of the salt beef that was

was supplied?—The letter which I have just read is written by the paymaster and purser of the "Alarm," and he there states that 1847 was the date of the meat. *T. J. Grant, Esq.* 16 March 1852.

437. Was that the date of the issue of the meat from the store, or the date of the putting up of the meat?—He says, "The beef we are at present using is dated October 1847." Therefore, in point of fact, it must have been of the cure of 1846, because it was the warranty of 1847; that was marked upon the cask. We always obliged the contractors to enter into a warranty, which shall hold good for 12 months.

438. Whatever this beef turned out to be you would not be able to come upon the contractor now, as the warranty is only for five years?—The warranty is for one year in the case of salt meat.

439. That being the case, is it not exceedingly desirable that in time of peace you should have the least quantity of salt meat at the different stations?—Yes.

440. Under those circumstances how do you account for the issue being so large?—It may have arisen this way: a ship may have returned a portion of her meat into the store at Halifax previously to her leaving the station, or the meat may have been returned there by a transport which had taken out troops to Halifax, and being a Government station would have left her stores at Halifax, or whatever port she was going to, and having the regulation as to preserved meats in operation, and there being very few ships on the station, there was no necessity during that time for the issuse of this meat from the stores. That is the only reason that I can give.

441. After the statement you have just made to us relative to the contract being for one year, and the contractor being subject to no penalty after the expiration of the year, it appears that the country has been charged instead of for 6,527 lbs., which was the regulated allowance, for the "Alarm" during the period stated in the return with this extra quantity, namely, the extra issue to make up the regulated allowance of 2,748 lbs., and thrown overboard 1,108 lbs., and sold on Her Majesty's account 1,824 lbs., of course subject to the deduction for the proceeds of that sale; am I right in that?—To a certain extent you are right, but a portion of this extra issue is given to the men on account of the alteration that has been made in the scale of victualling; we took away the rum and so on, and we have given them a bonus by giving them a larger proportion of other descriptions

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descriptions of provision, therefore a portion of that extra quantity of meat which has been issued to the "Alarm" is to be attributed to that circumstance; but principally there is no question that the increase has been owing to the meat having shrunk so very much in boiling from its being old and deteriorated.

442. The same remark would apply to the latter period?—Yes; but I think you will hardly find another instance of meat having been so old as that which has been supplied to the "Alarm," because of later years it appears to have been the arrangement of the department on this account to have as little meat as possible, particularly, I may say, in the last two years; the Board of Admiralty have been very particular in reducing our quantities of salt meat in consequence of that; our stock has been reduced to so low an ebb that it has put us to some inconvenience, inasmuch as we have not had altogether such a quantity as it was desirable to have in our stores, particularly on account of those alterations which have recently taken place in regard to the supply of preserved rations; therefore in our last contracts we have been obliged to buy a larger proportion than we should have done under other circumstances.

443. What has been considered by the Admiralty sufficient to have in store?—We have generally considered it necessary to have 16 or 18 months supply in store; we take our contracts generally about September, and they are to last till December of the succeeding year, the time that the curing of the meat takes place; they commence curing about October or November, so that that enables us to get in a portion of our new meat about December of the same year.

444. I see as regards the salt pork, the return is very different indeed; for instance, with the "Wellesley," the regulated allowance of salt pork issued in the time specified is 10,848 lbs., and no extras appear to have been issued for that ship; whereas I go again to the "Alarm," and I see there the regulated allowance was 14,098 lbs., and it was made up by 4,290 lbs. extra being issued?—I can only attribute it to this cause, that the people on board the "Alarm" are more knowing than those on board the "Wellesley." I cannot mention to what extent it has gone, but we have certainly, since this regulation has been in force, paid an enormous amount of savings for salt beef and salt pork that we never thought of paying before.

445. Can you state as far as this return goes whether or not the

the Admiralty have in their possession sums of money due to the sailors for this salt beef or salt pork?—I am not certain whether the purser's accounts of the "Alarm" are in office, but if they are in office there is no doubt that the exact sum may be ascertained.

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446. Mr. *Yorke.*] I see that, in regard to pork, there is none condemned, and none thrown overboard, and none sold on Her Majesty's account; can you account for that?—The fact is, that the pork is much preferred by the seamen to the beef; I believe, if we would allow them, they would eat nothing but pork. I may be allowed to observe, that the condemnations of late years have not been greater than they have been in former years; the condemnations, in comparison with the number of men who have been victualled, have varied very little, taking a number of years together. In some years you will find that the condemnations have been very small indeed, and perhaps in the following year you will find that they have been enormously large, arising from a number of returns coming into office from different ports in that year.

447. Mr. *Miles.*] Understanding from you the penalties to be for only one year in the case of both pork and beef, do you think it necessary to have 16 months' provisions in store at the different stations?—Salt beef and salt pork can only be obtained at certain times of the year, say from November till January or February, because the curing season generally ends by the end of February or the beginning of March; it is not desirable to cure after that time, because we find that meat that is cured in March, particularly pork, is liable to turn what is termed rusty. The best curing months are those from October to the end of December; therefore if we do not provide ourselves with a sufficient stock at that time, we cannot procure it at any other time of the year with the certainty of its being good; in proof of which I may mention that on account of the late condemnation of preserved meats, it was desirable the Admiralty should obtain salt meat to make up the deficiency of preserved meats, and after a great deal of trouble and difficulty and rejections, we did get about two-thirds of the quantity into store, and the deficiency that was then occasioned we have been only able to make up by our present contracts, therefore it is considered desirable always to have 16 or 18 months supply in store.

448. Under those circumstances do not you think it would be better to enlarge the terms of your contract so as to make it binding upon the contractor for more than a year?—I think

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think there would be great difficulty in getting the contractor to consent to that; 12 months is considered a sufficient time for meat to be preserved; indeed, it actually remains good for four or five or six years, but when meat is four or five or six years old, though it is good for human food, yet a great deal of the strength of the meat has passed off in the pickle, and of course it is reduced proportionally in weight. My opinion is, it is not desirable to have what are termed running contracts; we have them in some instances, but I think running contracts are not found gene rally to answer.

449. Having a supply for 16 months, if that meat should turn out to be bad, you would not have the power of recovering from the contractor?--No; I never knew an instance of meat being condemned within two years, or two years and a half, or three years, after it has been delivered in by the contractor. If the casks are kept full of pickle, the meat will not turn bad; but the meat which we send abroad is subject to a great many casualties, particularly that which is sent to the different West India stations. We generally send it out in merchant ships; it is put on board those vessels, and with the heavy weights that are placed on it, and from the rolling of the ship and so forth, we find a great deal of this meat is liable to be entirely out of the pickle at the time it arrives at its destination, and all that the authorities can do is to fill up the casks in the best way they can with the pickle they make on the spot, and the pickle that originally belonged to other casks. All that tends to deteriorate the quality of the meat in those climates; the casks become in a measure injured, that is to say, sufficiently injured to allow the pickle to leak out; and we find in a great many instances the casks are totally devoid of pickle at the time the ships arrive at their destination.

450. During the long time you have been attached to the victualling department, I understand you to say you have not known of any great fault having been found with the contractor for salted provisions?—I think not. I do not know of a single instance. The process pursued is this: When a cargo of meat is delivered at any of our victualling depôts, every tenth cask is rolled into what we call the seasoning house; we have a portion of the cargo examined, that is, a tenth part of the cargo; the next day these casks are drained of their pickle, and every cask is opened, and the meat is not only then examined, but it is taken out of the cask, and every piece comes under the examination of the inspecting officers; and great quantities of meat have been rejected,

rejected, being subjected to that inspection. But I do not know that I can bring forward a single instance of meat which has been condemned under two years or two years and a half from the time of its being cured. Meat which has been sent to the West Indies, or to the Tropics, on being returned into store, and if found to have lost all its pickle and become rusty, is of course condemned and sold. In some instances ships have taken meat away from the store, but have not used the whole of it, and for some cause or other that meat is condemned, and yet even then it fetches a good price when it is sold.

451. As regards salted meat, have any contracts been entered into with parties abroad?—Yes, several.

452. To what amount?—To the amount between the years 1848 and 1851, inclusive, of about 124,000 *l.*

453. Have you generally found that the salted meats supplied under foreign contracts, have been equally good with those supplied under British contracts?—I must say the meat supplied from Hamburg in particular, and the Prussian meat, and some of the French meat is quite equal to any meat supplied in the United Kingdom; I have my doubts as to the general quality of the American meat; we have been rather unfortunate with our American meat; we find now that there are very different qualities of American meat, some of it may be considered inferior meat, at least not as good as our meat, but some of it is certainly first-rate quality.

454. Are the American meats subject to the same examination as you have stated the other meats are subject to?—Precisely the same; during the last year, the meat has been subjected to a much stricter examination, by subjecting it to the test of boiling, and if we find that in boiling, the meat loses above a third, the officers have thought proper to reject the meat.

455. Do you apply the same test to the British meats?—Yes, we do now; it is the general order that all salt meat should be subjected to that test. I may add, we have obtained information from several of the large ship-owners both at Liverpool and in London, Green and Wigram, and parties of that description, and they invariably state that the merchant seamen prefer the American meats to those of the United Kingdom; and I must say that our reports from ships, generally speaking, with reference to Hamburgh meats and Dantzic meats, and French meats, as far as they have come to office, give the preference to those as compared with the meat of the United Kingdom.

 456. I see

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456. I see in the return presented, some of the contracts are supplied in tierces, and others in barrels; are the tierces British supplied meat, and the barrels of foreign supplied meat?—No; our contracts run for a certain number of tierces, and a certain number of barrels, for the convenience of the service; the barrels are for the smaller class of vessels, and the tierces for the larger class of vessels.

457. Will you be good enough to let us have the quantity supplied during the year, mentioned in this return of British meat, and the quantity of foreign meat?—I will furnish a return of that description.

458. Mr. *Fordyce.*] Have you any means of ascertaining whether the salt meat which is received under the English contracts, is or is not foreign meat?—Some two or three years ago, there was some American meat landed at Cork, and packed up with British meat in Irish barrels; a statement was made to the Admiralty at the time, I think anonymously, and the Admiralty immediately gave directions to their officers at the different depôts, to be very particular in the examination of this meat, in order to ascertain whether it was the fact or not, and the result was, that a great quantity of the meat that was then tendered for delivery into store, was found to be American meat, and the person who wrote the letter, mentioned how it was to be distinguished from English meat; it was much fatter, and much finer looking than British meat, but the skin of the meat was very soft, and by pressing the thumb at the back of the skin of the meat, it would be easily removed from the fleshy part of the meat, and that we found to be the case; there was a great admixture of meat evidently, and there were several cargoes rejected on that account.

459. *Chairman.*] Have you heard any general complaint that the meats were not to be depended upon, and that they were more subject to adulteration of late than they were formerly?—I think the meats delivered under the contracts of 1850 and 1851 have been as fine meats as we can possibly obtain anywhere, particularly Hamburg meat; it is fatter meat and finer. I must say that our Irish meat, as far as my own observation enables me to speak, has not of late been so fine as it was formerly. We found the year after the famine the meat sent in from Ireland was very inferior indeed, and great quantities of it were rejected. We had great difficulty at that time in getting our supplies, and it was attributed to the pigs not being as well fed as they had been in former years; and up to the present time I do not think, generally, the

the meat is as good from Ireland as it was previous to the year of the famine.

460. You do not attribute that deterioration to the admixture of other descriptions of meat with the British meat?—No; I think from the experience the officers at the Victualling Yards have of foreign meat they would be quite alive to that; they subject the meat to the examination which I have described, and they also subject the meat to the extra test of boiling, which is a sure test, but which, I must say, causes the greatest discontent on the part of the contractors.

461. Formerly you were able to depend upon the brands of the casks?—Yes; we found the meats which were sent in to us that there were some brands that were very inferior as compared with other brands, and we bought other brands for the purpose of experiment, subjecting to the test of boiling, and we found that there was a great difference in the quality of the meat.

462. You have, in fact, abandoned the test of the brands, and have subjected the meat to other tests?—Yes; of the meats which we have had delivered under the present contract, the rejections are very numerous, from the tests to which they are subjected.

463. Sir *F. Baring*.] Something has been said about running contracts; did not the Committee which sat in 1848 recommend that running contracts should not be continued?—I am not aware; but I find that running contracts have been discontinued entirely since 1848, and there is a Minute of the Board that every year a report is to be made from the different establishments, stating the time when the contracts are taken, and any observation the officers may choose to make respecting them.

464. With regard to the allowance made to sailors, can you give the date of the circular which directed that in case the meat boiled above one half, there should be an additional allowance to the sailors?—It was on the 25th of February 1846; it says, "Instances having been brought to the notice of my Lords Commissioners of the Admiralty, in which salt meat issued to the crews of Her Majesty's ships in warm climates has, from its inferiority or other cause, lost more than half its weight by boiling, it is their Lordships' direction, that when the salt meat supplied to any of Her Majesty's ships on foreign stations shall prove to have lost more than half its weight in boiling, the captain or commander of such ship shall, on satisfying himself of the correctness of the fact, authorize

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authorize the paymaster and purser to issue to the ship's company an additional portion of raw salt meat, equal to half the original allowance."

465. Previously to that, however much the meat boiled away, there was no allowance made to the sailor?—No.

466. So far he has benefited?—He has materially benefited.

467. Whatever inconvenience there may be to the revenue, the sailor is better off than he was in the old time?—Certainly; there is no doubt he is much better off, inasmuch as we have paid him 50,000*l.* in two years for his savings on salt meat alone.

468. And in consequence of the new victualling arrangement the allowance has been increased from three-quarters of a pound to a pound?—Yes.

469. Was there ever a time when the sailor's allowance was nearly so good in quantity as it is at the present moment?—No; it was never so great in quantity as it is now; indeed, it clearly appears that the allowance of provisions generally is more than is *bonâ fide* necessary, inasmuch as they have been paid about 150,000*l.* in the last two years for the value of provisions saved out of the allowance.

470. How long have you been connected with the Victualling department?—Upwards of two and twenty years.

471. During that time you have been in the habit of seeing the provisions, and the salt meat especially, which has been sent out to different stations and received in store?—Yes.

472. Do you consider the meat which is now supplied to the sailors to be worse or better than, or equal to what it was in old times?—I believe it to be the general opinion that the meat has latterly been better than it was formerly. It is the general opinion (I am speaking from reports in office) that the Hamburg meat, the Dantzic meat, and the French meat are superior to the meat of the cure of the United Kingdom; that is the gist of the reports that we have in office. We find from reports from Wigram & Green, and other parties in London, and also from shipowners in Liverpool, that the merchant seamen prefer the American meat to the meat of the United Kingdom.

473. You have communicated with Green & Wigram upon this subject?—Yes; I have their letters here.

474. How do they provision their ships?—They state that they provision their ships entirely with American meat, because the men prefer it

475. With

475. With regard to the care which has been taken lately; you have been upwards of 20 years now in the service; has greater attention been paid to provisioning the Navy of late years than there was in former times?—That is rather a difficult question for me to answer, inasmuch as I am, in a measure, personally concerned in the matter; but I must say that it is impossible for greater attention to be paid in the provisioning the Navy than has been paid of late years. If any individual would take the trouble to visit our victualling establishments and inspect the manner in which our manufactories there are carried on, and the manner in which our provisions are received and issued, I have no hesitation in saying he would be very much gratified, observing the care and attention which is paid to the subject. Looking at the trouble the officers take in obtaining and preparing provisions of the very best quality, I am sure, if it was a private affair, they could not bestow more pains and trouble than they do in the matter.

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476. In point of fact, has there not been of late years a larger expenditure as regards the quantity of meat supplied to the sailors than there was formerly?—Notwithstanding the provisions are of a superior quality and greater quantity now, the expense of victualling the Navy is even less than it was formerly. In 1848, it cost about 17 *l.* 15 *s.* per head, per annum, to victual the Navy. I think our last estimate for the present year is 15 *l.* 0 *s.* 7 *d.* per head.

477. That has arisen from a fall of price?—Yes, it has; because we have given the same quantity, or indeed a larger quantity than formerly.

478. Do you happen to recollect what the additional expense of the new victualling establishment was estimated at?—I forget the exact sum, but I think it was about 22,000 *l.* or 23,000 *l.* for the new scheme of victualling.

479. With regard to the "Alarm," the meat which was in store at Halifax was given to the "Alarm," what else could have been done with?—The fact is, it came in the regular course of issue. I have no doubt that the "Alarm" wanted meat, and the custom at the different depôts is always to issue the oldest meat first, and therefore I have no doubt that the "Alarm" had this meat because it was the oldest in store, probably returned to the depôt there from one of the causes I have mentioned, either from a transport or some other ship.

480. That meat must have been either destroyed or issued in the usual course?—Yes.

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481. Do you happen to know where the meat came from; was it foreign meat?—I believe it was, but I am not positive.

482 When was the first foreign meat introduced into the service?—I think in 1847; the paper I have read states that it was meat with the brand mark of 1847 upon it, therefore it must have been cured in 1846, 12 months before.

483. Mr. *Bunbury*.] You state that the rule is, that if the meat when delivered to the sailors boils down more than one-half or to the full amount of one-half, they are to receive an extra allowance, and if it boils down less than that, they receive nothing?—Exactly.

484. You state that the test of the meat being good to be delivered out when it is first received is, that it boils down to an amount not exceeding two-thirds; therefore, I apprehend that meat after it is delivered out in the proper course should boil down to more than half?—Repeated experiments point out that salt meat loses in boiling from 30 to 50 per cent., dependent on the period it has been in pickle.

485. Is not the effect of the rule this, that it is directly the sailor's interest if the meat does boil down more than to two-thirds, to have it boiled down till it has lost more than one-half, because in that case he receives the full allowance of an additional half, whereas in the other he receives nothing?—It is his direct interest to allow the meat, if he can arrange it so, to boil down to less than one-half, because then he gets the value of the additional half pound, and if the meat is tolerably good, he gets a certain amount of benefit of this meat which is thus boiled down in the shape of soup, and for the other half pound he is paid at the rate of 4*d*. a pound. Therefore, it is to the interest of the seamen that the meat should boil down to less than half a pound.

486. Is not the effect of this rule to make it the interest of the sailors?—No doubt it is, and that was a matter under the consideration of the late Board; they were perfectly aware of it, and previously to their leaving office, arrangements were in contemplation, and are still under consideration, to make an alteration in the present rule.

487. If I understand you, it is the cook's interest, as he gets the slush, which I suppose contains a good deal of the juices and good quality of the meat, whether the meat boils below a half pound or not, that it should boil down as much as possible?—Yes.

488. The effect of this rule is to make it the sailor's interest too?—No doubt, and both those circumstances were under the consideration of the late Board of Admiralty, and in point of

of fact, there is an arrangement in the instructions that are now forming to meet these two points; that is to say, the cook himself is not to have any direct interest whatever in boiling the meat away; he will probably have a slight addition to his pay, but whatever slush is obtained is to be returned into store, and to be sold for the benefit of the Crown, and neither he nor the sailor is to have a direct interest in the slush; as it is at present, the sailor not only gets another half pound of meat, but he also gets a proportion of this very slush.

489. If he received in no case the deficiency, supposing it were one-third or two-thirds, it would not be his interest that it should boil down one-half?—No; the fact is, that this regulation is now generally known in the Navy; and we find in every account that comes into office there is a larger claim made for extra meat than there was formerly, but we know by experiments that the meat does not boil away more than it did in 1788. In our present contracts we subject portions of every delivery to this test of boiling, and if it does lose more than a third, it is rejected as a matter of course.

490. You say that you have received foreign meat; you have mentioned Hamburg, and Dantzic and French meat; have you received any salt meat from the provinces on the Danube or the Black Sea?—No.

491. From the circumstance of their undertaking to furnish you with preserved meats, there must have been a very large quantity of meat in those countries that they are able to supply?—Yes, nevertheless; but latterly the Dantzic meats have increased in price very materially. We wanted to purchase some recently on account of heavy requisitions made from the Treasury beyond what we contemplated when we formed the estimate for the financial year; we were obliged to go into the private market for it, and wrote to several contractors to know at what price they would send in the additional quantity required, and in almost every instance we have purchased the Irish meat, on account of its being the cheapest.

492. You have no experience of the meat of that part of Europe, viz., the countries on the Black Sea, except with regard to preserved meat?—No.

493. Mr. *Fordyce.*] Is the Hamburg pork and the Dantzic pork considered superior to the Irish?—It is said to be better fed; it is decidedly a fatter and larger description of meat, and at the same time it does not boil away even so much as the

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the Irish meat; that is the result of the meat at present under delivery; we find that it actually does not boil away a third, which is the amount which we allow for the receipt of meat; the last receipt which we had of French meat, is reported to be of very superior quality, and the waste in boiling is comparatively small.

494. That is the case with pork as well as beef?—I think with beef as well as pork.

495. Mr. *Bunbury*.] Is the fact of losing less to be ascribed to its being thinner meat?—Yes; and to its being better fed. The observation we have made is this, that the best looking American meat, that is to say, the finest grown and the fattest meat is the meat that loses most in boiling. It is impossible to see finer looking meat than that meat as it comes out of the cask, but it will not stand the test of boiling; I suppose on account of the large quantity of fat that is attached to it. We have reason to believe that a good deal of this meat under certain brands is fed upon acorns, which gives it that fat appearance, but it has not the solidity which our meat has.

496. The meat which is over fatted, in the way that beasts are fatted for the sake of obtaining a price, would boil away to a large amount?—Yes; moreover the sailor does not prefer the fattest meat. In regard to some fresh meat which was issued, there was a complaint made some time ago of the meat not being sufficiently fat. When this complaint was made, the contractors were then called upon to send in a larger and a fatter description of oxen; the meat then sent in was foreign meat, which was very fat indeed; we had no sooner begun to issue it than complaints came from several ships that the meat was too fat; they did not like it; they preferred to have a thinner description.

Veneris, 19° *die Martii*, 1852.

MEMBERS PRESENT.

Sir William Jolliffe.	Mr. Miles.
Sir Francis Baring.	Lord Claud Hamilton.
Admiral Bowles.	Mr. Forsyth.
Mr. Gwyn.	Mr. Alderman Humphery.
Admiral Stewart.	Mr. Strutt.

SIR WILLIAM G. H. JOLLIFFE, BART., IN THE CHAIR.

Captain *Alexander Milne*, R.N., called in; and Examined.

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497. *Chairman.*] YOU are one of the Lords of the Admiralty?—I am.

498. You have filled the same situation in the late Government as in the present?—I have, since the latter part of December 1847.

499. Was your department in the late Government the same as it is now?—Yes, very nearly; indeed there is hardly any difference. I superintend the store and the victualling departments of the Navy.

500. Do all affairs relating to contracts come under your supervision?—What relates to contracts belongs to the separate departments themselves. The contract is not a separate department, but in the store department there are the contracts for that department, in the victualling there are the contracts for that department, in the medical department there are the contracts for that department, and so on for each branch; but it is the duty of the head of each department to see that the conditions of contracts are carried out.

501. You having the superintendence of the victualling department, the contracts for provisions became under your supervision?—I superintend, in conjunction with the principal officers of the departments, the receiving of tenders and contracts.

502. At any time of late years, did you think it necessary to alter the terms of the contracts in the tenders that were issued with respect to preserved meats?—In 1849 the conditions were reconsidered; in the summer of that year, or towards

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towards the autumn, I visited one of the factories near Edinburgh, for the purpose of altering the conditions of that contract.

503. Those alterations were made at your suggestion?—They were.

504. Previously to the contract of 1850, with Goldner, the terms of the contract had been considerably enlarged?—The conditions in the contract of 1850 were more stringent, and the detail was more complete than it had been before; new regulations were introduced as to the quantity of meat, the kind of tin to be used, the mode of receipt, and also the penalties.

505. The kind of meat which was to be put into those canisters was particularly described?—It was.

506. And there was a description of the parts of the animal which were to be excluded?—It was so.

507. That was done at your suggestion?—It was.

508. Can you state to the Committee what were the reasons of those suggestions?—It struck me at the time, that having enlarged the supply in the Navy in the years 1846 and 1847, it would be as well that the subject should be considered, and a new contract formed, because the previous contract, upon which we were then acting, was a running contract, which had been taken in 1844. It was a contract for twelve months certain, and three months' notice to be given by either party.

509. The Committee have a Parliamentary Paper before them, which states that there were three complaints of substances other than those which were proper being found in the canisters previously to the contract of 1850?—The first complaint was about November 1849, and it was upon that ground, as well as from considering that a new contract ought to be entered into, that that former contract was stopped in the month of December.

510. And that probably had some influence upon your mind as to the necessity of changing the terms?—Certainly.

511. And those parts of the animal which were to be excluded were more particularly described in the contract?—I believe that one word was inserted in it, "intestine:" "offal," has always been in the contract, as it is in the salt meat contract; it is a term well known, and is intended to mean the tongue and the heart, and inferior parts of the animals.

512. Were those terms in the contract which gave you the power of inspection during the process of the cure of these meats

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meats inserted at that time?—No, I think not; I believe that was always a condition in the contract.

513. Can you tell the Committee, from your recollection, what was the nature of the particular complaint which occurred in November 1849?—The complaint was that there was part of an intestine found in one of the canisters; but on a letter being written immediately to the contractor, drawing his attention to improper substances being found, he stated that it was a mistake to suppose that it was so; that it arose from the way in which they killed meat in Moldavia; that it was the lower part of the gullet, and that it was not intestine; that they do not kill the animal in Moldavia in the same manner as in England, and he did not believe that it could be what was stated; but that his impression was that it was part of the throat which had by accident got into the canister.

514. Was it known to you at that time, and for some time previously, that those meats were procured in Moldavia?—Yes.

515. When were you first acquainted with that?—When I first came to the Admiralty, I found such was the case, and I had always understood that it was obtained from Moldavia ever since 1844 or 1845.

516. Did it occur to you that it would be very inconvenient to institute the inspection that was authorized by the contract at such a great distance as Galatz?—It was not intended, I believe, to have any specific person there; but on the contract of 1851 being taken, I thought it expedient that regulation should be enforced, and the vice-consul in Moldavia was written to through the Foreign Office, requesting him to inspect the process at intervals.

517. We have heard that that did not take place?—That did not take place, owing to the circumstance that in the meantime Goldner's contract was stopped, and, therefore, it was not thought fair upon the contractor, that after having stopped his contract, we should then insist upon carrying out the original intention of visiting the establishment, over which we then had no control.

518. What is the description of officer that you employ in this country to carry on the inspection?—We have no particular person; at Aberdeen we have requested the commander of the Coast Guard to visit the establishments. In Leith we have requested the agent of transports, Lieutenant Pitt, who is stationed there, to go and inspect the manufactory of Mr. Gillon; but we have never had any fixed person for this duty, and

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and I very much doubt whether it would be expedient to keep any fixed person at those establishments, where a large manufacture is going on day and night, and if you throw the responsibility upon one person, it naturally affects the sharpness of the examination by the officer at our own yards. If they knew there was a Government officer at the place of the manufactory responsible for it, they would not be so attentive in examining the meat when delivered as they are when it comes direct from the contractor himself.

519. You think the inspection carried on in the Government yards afterwards would not be so complete?—I think hardly; they would think, if there was a Government officer responsible, that in case of anything going wrong he would be found fault with, whereas if the provisions came directly to them from the contractor, they would examine it very carefully, and I think that is a better check.

520. There being a clause at that time in the contract, to the effect that inspection might be instituted during the process, did you find difficulty in carrying that out?—That has been a general clause usually introduced into contracts; but I do not think it has been generally carried out, except in this instance, by writing to the coast guard officer to go and inspect Mr. Hogarth's and Mr. Moir's establishments. We asked him to go over and report what was going on, and we desired Lieutenant Pitt at Edinburgh to go to the manufactory of Mr. Gillon, who had the manufacture of the medical comforts for the Navy. Of course the responsibility of the receipt of those things would fall upon the officers who were specially entrusted with that duty at Deptford Yard.

521. There can be no doubt that the inspector of the coast guard was a very proper person to discharge such a duty?—He being a commander in the Navy and a person in a high station, it is better to employ him than a person in a lower class of life.

522. But was the consul at Galatz exactly in a position to discharge this duty?—I do not know that he was, but we had nobody to send. We wrote also to Sir William Parker about sending an officer from his squadron; but there was a difficulty in sending an officer to Galatz. Few officers are in a position to give an opinion upon a patent process of manufacture.

523. Do you know who is the consul at Galatz?—I think it is Mr. Cunningham.

524. Do you know in what profession he is, or whether he is a merchant?—I do not know.

525. Had

525. Had you ever any personal communication with Mr. Goldner with respect to this subject?—Never; I never saw him, or had any communication with him in any way whatever.

526. Were his contracts very considerably lower in their terms than the others that were tendered for in 1850?—I think they were generally about 1 ½ *d.* a pound or 2 *d.* a pound lower. In the contract of May 1850 the prices were for Goldner 4 ¾ *d.*, 5 *d.*, and 5 ⅛ *d.*; and if taken for a period of three years, they would have been 4 ½ *d.*, 4 ¾ *d.*, and 4 ⅞ *d.* The highest price of another party was 7 ½ *d.* a pound, in London.

527. Making a difference of about 2 ½ *d.*?—About that. There were others at 6 ⅜ *d.*, 6 ¾ *d.*, and 6 *d.* There were ten parties altogether who tendered upon that occasion.

528. Would the distance of the place at which the preservation of the meat was carried on, and the lowness of the terms of the contract, make an inspection more or less necessary, in your opinion?—I should very much doubt the necessity for it, for this reason, that of course the meat in coming to England would come here a considerable time after it was cured, and when it came to be received, if there was anything wrong with it, it ought to have been and was more likely to have been seen by the receiving officers at the time.

529. With respect to what took place in 1851, in Portsmouth Yard, when was it in 1851 that you yourself were first informed of the bad state of the meats in the Clarence Yard?—I think it must have been about the month of May.

530. Did you yourself visit the Clarence Yard about the time you mention?—No, I think not till August; I think it was in August, at the time of the inspection by the Board.

531. Were the 2,000 and odd canisters that Goldner took away gone at that time?—I think they were not; but it is difficult for me to recal those matters of detail, because they belonged more to the department of the comptroller of victualling, and they do not come before me except specially; he conducts the working of the business of the department. It is only peculiar things that come to my notice, and therefore I am not exactly aware of the months when these things occurred.

532. Mr. Grant stated that the Admiralty would have thought it very desirable if Goldner could have been induced to withdraw all his meat?—All the meat that is actually not received by the receiving officer he is actually bound to take away; but any other that might have been condemned after receipt,

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receipt, it is the usual course to charge him with, and to call upon him to make good that which has been condemned, according to the terms of his agreement: that is to say, he was bound by his agreement to make good all meat condemned within a period of five years after delivery into one of our yards; and therefore, any meat that was condemned before that time he was charged with the value of.

533. The account which we have of this transaction is, that he sent a person of his own, and that this person said he could tell which were the canisters which contained the meat which had deteriorated, and that he then selected about 2,500 cases and took those away?—Yes. They having been condemned, we could not do anything with them; they were unfit for issue. We must either have thrown them away or let him take them away. Those 2,000 canisters were condemned. Mr. Goldner wished to send other meat in lieu, but was not allowed.

534. But Mr. Goldner was not disposed to take away any more?—I believe that was after some communication which he had had with his solicitor; he then found that it was better for him not to have anything to do with it, but to leave the matter in the hands of the Admiralty.

535. And then the Admiralty took the only other course which was open to them, which was to inspect those meats, in order that they might levy the penalties upon the contractor?—Yes. When the Admiralty found general complaints of Goldner's meat, and complaints of improper matters being found in some of the canisters, they considered it their duty to stop the issue entirely of Goldner's meat, that none might be again issued Further than that, after that entire stoppage, the next point was, how we were to charge Mr. Goldner; and the only means of doing that was to have a general survey upon all that was in store, and to charge him with that which was bad, and to give to the poor that which was good; we had no other course to pursue.

536. Would Mr. Goldner have been a greater sufferer by replacing the bad meat which he took away, or by having it all surveyed, and the Admiralty levying the penalties which the contract provided in this case?—I believe he asked permission to take away all the bad meat; but the Board thought that a highly objectionable course, because as the meat was bad, he might dispose of it in some way or other, and therefore the bad meat having gone out of the Government stores, might have been stated to be the cause of sickness or illness wherever he might dispose of it. Therefore the

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the Board thought it a very objectionable course to allow this meat to go back to Mr. Goldner, because we did not know what he might do with it, and we thought it better to open it and destroy it; but I am not sufficiently informed of the facts of the case to give any certain answer to the question without reference to the correspondence in office.

537. That was after he had taken away the 2,000 canisters? —Yes, it was on considering the case, and thinking what can Goldner do with this meat?

538. Therefore it was not upon Mr. Goldner's objection that the withdrawal of the meat was stopped, but it was that the Admiralty thought such a course objectionable?—I recollect the circumstances being mentioned to some members of the Board, and they thought it objectionable to have it taken away.

539. Mr. *Gwyn.*] Was Mr. Goldner present when the canisters were opened?—I think not. I am not sure whether his agent was there. He had an agent who acted for him in London. He was always written to, to acquaint him when a survey would take place on such a day, and he was requested to be present himself, or his agent for him, to see that everything was done fairly with regard to it.

540. *Chairman.*] Your impression still is, that the stoppage to the further removal of the meat was not on the part of Mr. Goldner, but on the part of the Admiralty?—I cannot recollect the whole of the circumstances; but I believe it was on the part of the Admiralty Mr. Goldner was to take a certain quantity away which was to be replaced by good meat; but whether he has done so or not, I cannot positively state.

541. Did you happen yourself to be present at any of the inspections which were made?—No, I was not at any of the surveys; I have seen meat opened at Deptford at different times, but not at the surveys.

542. Those surveys were directed to take place by the Commissioners?—By several officers who were selected to attend for the purpose, besides those whose specific duty it is, belonging to the yard, to inspect the provisions.

543. Do complaints made at foreign stations come to you? —Not always; when any specific complaint comes to the Commander-in-chief, it comes direct to the Admiralty, and then I see it because it comes to me direct; but the general returns and victualling accounts of the Navy, for instance, the quarterly and yearly accounts, come to the Comptroller of Victualling; and it is then his duty to bring before me any-

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thing that is out of the common with regard to condemnations or anything else.

544. After the year 1850, and towards the beginning of 1851, these complaints began to be very numerous?—They did.

545. Particularly from the Mediterranean squadron?—They were numerous; but then they were with regard to small quantities, single canisters containing 6 lbs. 10 lbs. or 12 lbs., and therefore they appeared more numerous than the complaints which would come with regard to other articles of provision; because where a survey would be held it might be held upon a 12 lb. or 6 lb. canister, whereas generally with regard to beef and pork, if there is anything wrong you condemn a whole cask of 300 lbs.; therefore although the complaints appeared more numerous, I do not think the quantity altogether condemned was so very large; the complaints came principally from the West Indies, I think, in the first instance.

546. And latterly they became very numerous from the Mediterranean?—I do not think more in proportion than from the West Indies; the complaints have been more numerous in the last 18 months than at any previous time; this is attributable to the more general use of preserved meat since 1849.

547. The condemnations of those small quantities occurred from the nature of the provisions, which was such, that they could only be inspected in small quantities, and that was the reason why the complaints were made as to small quantities at a time?—Quite so.

548. Mr. *Miles*.] How long have you retained the situation which you at present hold in the Admiralty?—I came there in December 1847.

549. Then you only know, by inspection, what was the nature of the running contract with Mr. Goldner?—I only know it by inspection; it had been going on since 1844.

550. I wish to draw your attention, now, particularly to the contract of 1850. I find, by a Return made to the Committee, that the earliest complaint of objectionable matter found in the canisters was received in the office on the 24th of November 1849; and I find likewise, by the same Return, that the first contract in 1850 was on the 2d of May. Now, when that contract was made, were any orders issued for a particular survey of Goldner's meats in store?—I think not, and there was no special order to survey what was in store in the yards, nor had the Admiralty any suspicion of there being anything

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anything improper with reference to the preserving of the meat, or inattention or neglect on the part of Mr. Goldner.

551. So that without a particular survey being made, after those complaints had been alleged, another contract was entered into with the same man for the very large quantity of 500,000 lbs. on the 2d of May?—Yes, but only three complaints had at this time been received; part of the contract was given to him being the lowest tender, part to another party.

552. I will draw your attention, now, to the contract which was entered into in 1851. In the same paper I find it stated, that between that period, (namely, the 24th of November,) and I suppose the period of making the 29th of January contract, 11 further complaints of a similar character were received in the office respecting offal discovered in 21 canisters, mixed with the meat?—I believe there were.

553. I wish to ask whether, previously to entering into that contract, any particular survey was made of Goldner's meats which were then in store?—I believe not; I think there was no special survey ordered; we had every confidence in the officers who received the meat, and whose duty it was to inspect it; we felt assured they would not receive any that was bad; the complaint which first reached the Admiralty in November 1849 was immediately communicated to Mr. Goldner, and therefore his attention was drawn to the subject. The circumstance complained of could of course be only an accidental one. No man in the situation of Mr. Goldner, who had so large a stake in the matter as he had, and who had supplied the Admiralty from the year 1844 with very few complaints, could have ventured to have put anything up of an improper kind with any intention of fraud; he may have been subjected to it by some party who has imposed on him from malicious motives. He was immediately communicated with, drawing his attention to it. When the contract of 1850 was entered into, which was by public advertisement, it was not considered that there was sufficient ground to exclude a man who had served you well for a period of six years, and who was considered in every respect competent to fulfil the conditions of the contract, and who had, at a large expense, erected a manufactory at Moldavia for the supply of the navy with preserved meats.

554. But looking at the low price at which Goldner's contract was taken, as compared with other contractors who usually served the Navy, and looking, at the same time, at the

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circumstance of the supply being from abroad, subject of course to no inspection at the time of putting up the cases, do not you think it would have been wise, before entering into so large a contract, that what you had in store should be thoroughly inspected and examined?—I think it would have been rather an awkward case to have gone and opened every canister, as we must have done, to make a thorough inspection. We trust implicitly to the uprightness and integrity of the receiving officers at the yard, with regard to the receipt of these meats, and, as I said before, we had no suspicion of irregularity on the part of the contractor.

555. The Committee has been informed that it is very possible that even in taking the provisions into store injury might be done to a canister, so that it may become bad, because immediately the air is admitted that instant corruption ensues?—Yes, I believe there are two or three causes that may conduce to decay with regard to this meat; I believe with reference to handling it, that persons throwing it from one to the other may cause the tin or the solder to give way. There is also damp; the damp sea air is liable to cause rust so as to affect the canisters, and the smallest particle of air may get in; those are all circumstances that will affect the meat and cause decay. With reference to taking these contracts, the Admiralty have never yet departed from the principle of taking the lowest tender; that is the principle on which every contract at the Admiralty is taken, when you go to the public by public advertisement and fixed conditions, The salt meat and preserved meat contracts are taken upon fixed conditions, stating what you require, and we have never departed from the principle of taking the lowest tender. If a party comes forward and says, "I am ready to supply you according to your own printed conditions, there are my securities, there are my referees," we think that sufficient; provided the party is a manufacturer, and is known.

556. After what has occurred would you now recommend the Admiralty to take always the lowest tender for these provisions?—In the case of these very tenders we took the lowest for a certain quantity, and we took also the next highest tender; and if we had carried out that next tender we should have had Goldner's identical meat at a higher price. We took Goldner's tender for 500,000 lbs., and we took the next highest for 250,000 lbs.; we wrote to the second party to know where his manufactory was, and it turned out that that very party was an agent of Goldner's; and he said that he never intended to make this meat in England; and, therefore,

therefore, we were taking the same identical meat at a higher price, and had we taken a still higher price the same might have occurred.

557. Mr. *Gwyn.*] Were there many tenders sent in at the time?—Ten.

558. Mr. *Miles.*] But Mr. Ritchie was excluded in consequence of its having been found out that he was only agent for Mr. Goldner?—Certainly; the moment we found that out, we said, "We cannot accept you;" then the next lowest tender to his was taken.

559. In a case of this description, when you are contracting for provisions for a long voyage in which you cannot possibly get fresh meat, and considering that these are not only medical comforts, but in the present state of things almost necessaries to the crew; it having been determined to distribute them three times a fortnight, do you not think it better first of all that the character of the person who tenders for so large a supply should be all minutely inquired into, and that you should have the power of inspecting the meat when it is put up, and that it is better to take the tender of the man of the greatest respectability rather than of the man who tenders at the lowest price?—That is all very true, but I must say I have no confidence in any name; those who stand highest by name have also had their meats condemned, and so little confidence have I in them that neither Mr. Grant or myself would take on ourselves the responsibility of ordering the provisions for the Polar ships, but desired Sir E. Belcher to select the best men he could find, and the Admiralty would employ them. What has been the result? the meat sent in for receipt has all been rejected as unfit, and this from the first house in London; therefore I must repeat, I have no confidence in any name.

560. Has any particular report been made to the Admiralty relative to the supposed causes of decay of the meat when those special surveys took place?—No; nobody appears to know the cause; I doubt whether the manufacturers themselves know. After all this business with Goldner was put an end to, it was determined in the succeeding contract to take three contractors, not to allow it to get into the hands of one man; we therefore took Mr. Gamble, a name well known for many years; we took Powell, another London house; and the third was Mr. Hogarth. Mr. Gamble sent us in upwards of 25,000 lbs. of meat; but the whole was rejected as unfit for the service; he never sent in another pound. Mr. Powell declined

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declined to fulfil his contract, and we were thrown upon Mr. Hogarth alone.

561. At what price was that contract?—Sevenpence halfpenny. I am not sure whether Mr. Gamble's was not 8 *d.*

562. Did they assign any reason for the non-fulfilment of the contract?—None; Mr. Gamble sent in this meat, and as we had been in difficulties with regard to Goldner from the meat becoming bad, in a way which we could not understand, we tried those three parties instead of having one, and we were thrown into difficulties in consequence. Mr. Gamble refusing to comply with his contract, we were obliged to employ a solicitor; Mr. Powell threw up his contract altogether, and Mr. Hogarth, of Aberdeen, is now going on executing the contract, and also a Mr. Moir. But Mr. Moir, who I believe is a most excellent man, after delivering his meat into Deptford yard, has been obliged to take back the whole of the 9 lb. and 12 lb. canisters in a state of incipient decay; he himself has inspected the meat, and says that the meat is not in a state in which it could be received, and though he is a manufacturer, I understand he says that he has yet something to learn with regard to the curing of meat.

563. Taking all these facts into consideration, do you still adhere to the opinion that to accept the lowest tender is as safe as any other course of contract?—I think so; I think you could not depart from that principle; I do not see that you would improve the matter if you were to take a higher; the name appears to me to have nothing to do with it, for all parties, from our experience, appear alike, and you may be receiving the same kind of meat at a higher price.

564. In the case of Goldner's contract, have you ever adopted the alternative of condemning it and receiving from other persons meats of the same description, and charging him with the cost?—No, because we could always get a supply from him; if he had been unable to replace condemnations we should have purchased on him.

565. Is there not that additional security in Government contracts that if the meat supplied by an individual proves bad, then the Government for all such provisions turning bad can procure such meat from other persons and charge the contractor with it?—I think there is such a condition in the contract; I am not aware that the condition has ever been exercised, or that it has been proposed to exercise it, except in such cases where the contractor refuses, or is unable to make good the condemnation in proper time, or you are in want of the provisions at the moment.

566. If

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566. If it had been exercised, would it not have been an additional mulct upon Mr. Goldner?—There is no doubt it would have been an additional penalty.

567. Then are the Committee to understand that notwithstanding that condition in the Admiralty victualling contract, it has never been acted upon in any way?—I am not aware that it has; I have no recollection of it, except in one instance where purchases were made from Gamble, Powell & Hogarth at Mr. Goldner's expense.

568. Sir *F. Baring*.] Do not you suppose that the measures taken by the Admiralty will ruin Mr. Goldner?—No doubt about it.

569. Was not that quite sufficient?—I should say so. The man must no doubt be a ruined man.

570. Lord *C. Hamilton*.] You said that Mr. Gamble refused to perform his contract. On what grounds did he make that refusal?—I do not think he gave any grounds at all. He left us to get a supply how we could.

571. You were understood to say that the 9 lb. and 12 lb. canisters were faulty?—I was alluding to Mr. Moir's, at Aberdeen.

572. Was it not the case that the contractors objected to that size of canisters?—Not at all, quite the reverse; because, when the contract was about to be entered into, we communicated with the leading houses in London; and there was only one party who did not exactly object, but said they would be better in 6 lb. canisters. Mr. Gamble himself went up to 14 lbs. The previous supplies made to the Navy had been up to as far as 17 lbs.

573. Were those sizes proposed by the contractors?—Yes, 14 lbs.

574. Not proposed by you for the sake of economy?—Not at all. We consulted them. We said, "Let us have your advice what is best to be done, and let us know what quantity of meat should be put into the canisters, and what kind of tin they should be made of, and any information that you can give us with reference to the new contract."

575. Have you ever inquired how these matters are managed in the mercantile marine?—They do not issue the meat in a solid state; they merely issue medical comforts. In the emigration vessels they have it principally in the shape of soup, and *bouilli*, or boiled mutton. They issue it in very small quantities; it is always fluid, and it is in canisters generally about 6 lbs. and 8 lbs.

576. What is the exact meaning of "issuing," with respect

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to all these provisions; does it mean when it leaves the store to go to a foreign station, or to be put on board ship, or does it mean when it is issued for actual consumption?—When it is issued for consumption.

577. Then if meat is sent home from a foreign station to the store, and there condemned, that would not have been called "issued"?—No, that is still in store.

578. Though it had been sent out to a foreign station?—Yes, it is still on the store books, not issued.

579. Then, in fact, the actual issue which appears in the printed list, means what has been given out for the consumption of the men, a portion of which has then been found wholly unfit for consumption?—Yes. In this paper, when it states "the quantities issued since the commencement of the above contracts," that means that that quantity was actually served out to the men; that 2,741,988 is what was actually issued to the fleet.

580. It is stated by Mr. Grant that the meat was all supplied under contract, but that, being without a label, it is impossible to tell under what contract it was delivered. Now, as the contracts with Goldner commenced in 1844, and as this meat was condemned in 1850, and there were no labels upon it, in consequence of which it is impossible to know in what year it was delivered into store, may it not have been the fact, that five years had elapsed before the meat was condemned?—It may be so; but as the canisters were not marked in the early contracts, we could tell the age of the meat; our stock averaged about two years' supply; but it was for that reason, that in the contract of 1850 it was determined to have a stamped label put on, with the name of the contractor, and the weight of the meat. Another reason was, with reference to a complaint that was previously made, but which was quite unfounded. There was a complaint of short weight against Goldner; but the truth of that was, that in his original contract it was fixed at 14 ounces to the pound, and, by some mischance, that was not generally known, and it was issued as 16 ounces to the pound. That caused complaints, which were immediately rectified in the new contract, by putting in the weight of 16 ounces; but the reason of the 14 ounces was, because the meat contained no bone.

581. I find it also stated, that in Goldner's contract of 1850, it was inserted as a condition that this meat was to be manufactured in the United Kingdom; was that the case?—I think not; I think there is nothing in the contract with regard to its being manufactured in the United Kingdom.

582. Lord

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582. Lord *C. Hamilton.*] You say that virtually that provision of the contract has been allowed to fall into disuse, by which the contractor was bound to give timely notice to the Commissioners in writing of the periods when and the places where he commenced preserving meat; you do not think it is necessary to have that done?—I do not think it is necessary to have a fixed person to inspect, but it is always right to take the power in case you think it right to exercise it; but I do not think it would be advantageous to have a fixed party residing upon the spot to superintend the manufacture.

583. Upon each occasion when the contract has been taken by Goldner, has he stated that Galatz was the place whence his supplies were to be forwarded?—I do not think he has specifically stated that in the contract, but we knew that his manufacture commenced there in 1844, and that his supplies had been drawn from that establishment.

584. In question 363 it is stated that the terms of the contract with Goldner are, "that the contractor is to give timely notice to the said Commissioners, in writing, of the periods when and the places where he intends to commence preserving meat to be supplied under his contract, in order that if they think it necessary they may send an inspector to his factory, to ascertain that the process is conducted in every respect in accordance with its conditions." Now I wish to ask whether upon each occasion that has been done?—No. At the period of the contract of 1851 we did request the vice-consul at Galatz to inspect the establishment there.

585. Upon each occasion, has Mr. Goldner given you timely notice of the time and place of his manufacture?—I cannot give an answer to that, without reference to the documents; because the only part I had with regard to the contract was being present when the contract tenders were opened, and seeing that the lowest tender was taken, and that the contractor gave references of parties for his security. The detail of carrying out the conditions of the contract rests with the comptroller of victualling.

586. *Chairman.*] I understood you to say that it was upon your suggestion that the terms of the contract were framed?—It was originally; that was about a year previously to Mr. Grant becoming the comptroller of victualling.

587. Sir *F. Baring.*] Was that condition about the inspection a condition in the running contract with Mr. Goldner?—I think it was.

588. In what year was it framed?—In the year 1842; the first condition was drawn up in 1842; then subsequent conditions

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ditions appear to have been inserted in 1844, and the contract was signed in December 1844.

589. *Chairman.*] It appears that there was no contract with Goldner between 1844 and 1850?—No; the original contract was stopped in December 1849. The contract of December 1844 was a running contract of twelve months certain and three months' notice, and that ran on until December 1849.

590. Sir *F. Baring.*] In consequence of some complaints that contract was revised?—The whole thing was revised. We consulted with the leading manufacturers in London, and I went to see the establishments to inspect the process.

591. Did not you communicate with the different manufacturers with a view of making arrangements to prevent any cause for complaint in future?—Certainly.

592. Was any communication at that time made to Mr. Goldner upon the subject of those complaints?—There was a very strong letter written to him, and Mr. Ritchie sent in an explanation of the way in which it had happened.

593. Have you that letter with you?—I have not it with me.

594. Will you furnish the letter to the Committee?—Certainly.

595. Do you recollect that among the complaints that there was a complaint from the Arctic Expedition?—There was.

596. Some of this meat which was returned in store from the Arctic Expedition, was examined?—It was all surveyed.

597. What was the result?—It was all good, and subsequently issued to the convict ships as medical comforts. Sir James Ross made a complaint of the provisions which had been issued to him. Of course one felt very much annoyed that anything bad should have been issued to an expedition where it was wished everything should be particularly good, and on the return of the expedition it was ordered to be specially surveyed. A certain proportion of the canisters were examined, and the report of the surveying officer was this, that the meat was perfectly sound, good, and sweet; and Sir John Hill, the superintendent of the Yard, said, in his letter, "I entirely concur in the report of the inspecting officer."

598. Out of the three complaints, that was one?—Yes.

599. There was subsequently a new contract for 1851?—There was.

600. At the time when that new contract was entered into had there been any complaint against the meat supplied under the contract of 1850?—Not that I am aware of. I heard of no complaint against it at all; and I may mention that it is my impression it would be better to take a contract for a period instead of for a quantity.

601. Having seen a good deal of these transactions, have you any reason to suppose that Mr. Goldner in any degree got his contract, either his contract under the former Board, or his contract under the late Board, from any political influence whatever?—Not in the slightest degree in any way whatever. Nothing can be more fair or just than the mode adopted in accepting contracts.

602. Do you believe that he has the slightest political influence?—None whatever. The only wish of the Admiralty was to do what they best could for the good of the service.

603. Lord *C. Hamilton.*] You never were present at any of those inspections?—Never at a special survey.

604. Admiral *Stewart.*] You have seen the meat opened?—I have seen the meat opened, canisters here and there, but I never attended any surveys that were specially ordered to be made upon the meat.

605. Lord *C. Hamilton.*] When any great condemnation took place, that came officially before you?—Yes.

606. Where there have been condemnations of large quantities, have you had a minute investigation of the details, so as to ascertain in what proportion of the canisters there was filthy matter?—I think that has been done to a great extent, and I think in the stores they only found 13 canisters.

607. Some condemnations were rather sweeping. There the stench made it very obvious?—Yes; but I really believe more was made of it than the case deserved.

608. In those cases how could you ascertain that there was not filth in the canisters?—Because a medical man attended and examined every canister.

609. He was not satisfied with perceiving the great stench, but he looked at the contents even in those cases?—Yes. Though it seems rather a sweeping condemnation, when you come to analyze it; the fact is I believe only 13 canisters were found to contain anything improper: that was at the Clarence Yard, at Portsmouth.

610. But that does not include the number that Mr. Goldner withdrew?—No, there was no reason to suppose that there was anything improper in those, although the contents had become bad.

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611. Admiral *Bowles.*] Will you be so good as to state what was the history of the first supply of preserved meat in the Navy?—To give the history of preserved meat, I would begin as far back as the year 1830. It was then introduced as a medical comfort, and the success of it in the Navy induced some parties to recommend it as an article of general victualling in lieu of salt beef; and I did myself look forward to the time when ultimately preserved meat would entirely take the place of salt beef, but not of salt pork, because the beef has never been very much relished by the men; and I thought the time would come when this preserved meat, provided we could have got it perfectly good, would take the place of salt beef. It was extremely liked at the two stations to which it was sent, upon the coast of Africa and also in the Pacific; the reports of it were most favourable. It was then introduced, in the year 1847, as an article of victualling, seven days in the month. The reports from Sir Charles Hotham were extremely favourable. The reports from the Channel squadron under Sir Charles Napier were also favourable to it. There was scarcely a captain that came home that I did not personally ask the question of how the preserved meats were liked, and certainly, with the exception of one or two cases, they were in favour of preserved meat as an issue to the men.

612. Was it at that time packed in small canisters?—No, they had canisters, I think, up to 15lbs. larger than they have now.

613. Up to what period did this go on satisfactorily?—There is a difficulty in giving correct evidence upon that point, because we have found that in many ships the provision is perfectly good at this present day, whereas in others it is bad. Take the case of the "Plover," in Behring's Straits; the meat had come from Galatz to England, and gone from England to the tropics, and thence to Cape Horn, and from Cape Horn to Valparaiso, and from Valparaiso to Behring's Straits, to the "Plover;" and her boats when they performed the journey from Behring's Straits to Mackenzie's River, had nothing else but the preserved meats; and Captain Pullen, who was in command of the party, said that they never had anything to find fault with; that they were perfectly good.

614. By whom were they supplied?—They were supplied by Goldner, under his contract. Therefore we have in many instances most excellent reports of good meat, and yet there are other instances in which it is unsatisfactory? Now the question

question naturally arises, from what cause has this condemnation of particular meat taken place. It is not from the inferiority of the meat, according to what we see here, but from other causes; and I believe the manufacturers themselves cannot really tell you what the cause is.

615. Do you think it would be more advisable in future to prepare all preserved meats in the Royal yards?—I think it would be more satisfactory to the Admiralty themselves to know that the meats were prepared under their own eye, and by their own people. It might cost them a little more money, but at the same time it would be more satisfactory to feel assured that nothing improper could be put it.

616. We do it already with respect to our bread?—We do it already with respect to flour and bread.

617. And we do it also with respect to our cocoa?—Yes, we do; we grind our own cocoa and manufacture it.

618. Therefore you do not see any reason why, with the existing establishments at Devonport and at Deptford, there would be any difficulty in preparing a sufficient quantity of preserved meats for the supply of the Navy?—I think not.

619. And you think that would be the preferable course in future?—I think it is desirable if the preserved meat is to be continued as an article of victualling. I do not like to create new establishments if it can be avoided, but it would relieve us from difficulty, because though at the present moment we may have a man respectable by name, as Mr. Hogarth, the same thing may, from causes over which he has no control, and by malicious people, occur to him as did to Mr. Goldner.

620. Do you attribute the great increase in the complaints which have taken place to the greater difficulty which has arisen in exhausting the air in consequence of the larger pieces of meat that have been put up?—It may be so. I think it is very likely that it is owing to the difficulty of extracting the air from the centre of the meat. While it is under the process of curing, the outer part of the meat becomes over cooked, from the extreme heat to which it is subjected. The air is not driven out sufficiently from the interior or the heart of the canister, and being thus becomes the cause of deterioration in the meats when it gets into a warm climate.

621. Do you think that might be avoided, by packing the meat as before, in smaller canisters?—It struck Mr. Grant and myself, that it would not be right to run the risk of condemnations which appear to exist so particularly with the 9lb. and 12lb. canisters, and therefore the contractors now employed

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employed by the Admiralty were written to, to request that they would restrict the putting up of the meat to the 6lb. canisters. That was done some months ago.

622. Do you think that great additional advantage would be gained by that, in consequence of the canisters themselves not being so heavy, and consequently not being so much exposed to injury in being hoisted in and out?—No doubt the canisters are more likely to remain sound, and therefore to exclude the air.

623. A great deal has been said in the newspapers about offal. What has actually been found in the canisters in the shape of offal; what pieces of the animal?—What is called, properly speaking, offal, consists of the heart, and the tongue, and I believe part of the neck; those parts are considered offal, and in the salt meat contracts they are excluded, and they are also excluded from the preserved meat contracts; but improper substances were also found in some canisters.

624. What was found of that description?—There was said to be part of the intestine, part of the thorax, and I believe that was so. Parties complained that some of the canisters contained intestine with decomposed matter, such as hay. The whole amount of that, I believe, as far as we have gone, amounted to 80 canisters; 67 condemned on board ship, and 13 in store, making in the whole 750 lbs. out of an issue of 2,741,988 lbs.

625. Was there not reason to suppose that those matters had been put into the canisters by some party at Galatz who had quarrelled with the contractor?—That is stated by Goldner; of course he could have no object in putting such things in; it was a thing likely to cause his ruin if it was found to any extent. And it is also stated by a workman who was in Goldner's employment, who was out there, and who wrote to the Board, stating that he would wish to give some evidence, and he made his statement, which appeared a perfectly honest one; he said that Goldner could have no object in doing this, and that it was done by some of his work-people to spite him because they had quarrelled with him.

626. Have you inspected the different manufactories in England?—I saw the manufactories at Leith, of Mr. Gillon.

627. How long does the process last?—The first process is that after the canister is made and the meat is put in, there is a small aperture left in the top, and it is put it into a solution of lime so as to raise the temperature up to about 219°. The canister remains in this lime, not entirely enveloped but with the top out, till the meat is cooked. As soon as that is done

done the little opening on the top, which was previously closed with solder, is opened with a hot iron; by this means the whole of the steam and air inside escapes; it goes up as out of a boiler. It is then sealed again, and then put for some hours into this lime a second time; it is then opened a second time with a hot iron; the steam that escapes at this operation is much stronger than the steam in the first. It is then sealed a second time and put into the solution again for some hours, and then put away. What Mr. Gillon told me is most extraordinary: he says that if the canister is not put a third time into the lime before it is put away, the meat will probably be rotten in a month.

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628. Lord *C. Hamilton.*] Yet there is nothing allowed to escape from it at that third time?—No; it is merely put in the solution, and allowed to remain for an hour, and after that it is put away. But Mr. Gillon said if that canister is put away, without going through that last process, it would not keep.

629. Admiral *Bowles.*] Your opinion is that no effectual inspection could be carried on during the process?—I think not. It is very well for an officer of the coast guard to go once a month to the manufactory, and to take power in the contracts to do so; but I doubt the advisableness of having a person to live upon the premises to inspect the process as it goes on.

630. All that could be done would be to see that the animals slaughtered were of proper quality, and you would then hope that the contractor would put good meat in the canisters?—Yes. We know that at this moment we never get the best portions of the animal. The best part of the animal comes to the London market, and we get only the fore part. I believe the expense of fitting up an establishment would be about 300 *l.*, added to which there would be the parties that you must get to carry on the business, who ought to be persons who have been trained to it; and then if you kill your own meat, you would be certain of getting the best meat.

631. When you say 300 *l.*, you mean for each yard?—Yes.

632. About 1,000 *l.* altogether?—I suppose about that.

633. Do not you consider that in deciding upon such contracts the Admiralty is bound to accept the lowest tender, if the performance of it is sufficiently secured?—Invariably. I do not know of any occasion, but one, on which they have departed from that principle.

634. Do you think it would be desirable to make contracts for

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for provisions in Australia for the ships on those stations?—The ships in Australia are supplied entirely with meat there. With regard to the supply of meat on foreign stations it depends upon what provisions be obtained upon those foreign stations. A return has been instituted at the Admiralty, which comes home from each foreign station in the month of October, which gives the price of every article of naval provision which can be obtained at that station; therefore we can see whether it is right to send out provisions to that station, or whether we can obtain them better upon the spot.

635. Do not you think that a great deal of unnecessary expense has been incurred in former times by sending out from England provisions that could be procured better upon the spot?—It was the custom at one time to send everything from England. For example, take Sydney and New South Wales: I believe at one time we used to send salt meat there; but we can buy it at nearly half the price there. The return I have mentioned gives us the price of every article that you can obtain there.

636. Do you think that under improved arrangements, and by packing the meat in smaller cases, this supply of preserved meat to the Navy, as it has existed since 1846, by which one day's salt provisions in a week is got rid of, may be continued?—Since these complaints have come home, we have limited the supply to three stations, to the Pacific and to the coast of Africa, and the Cape, the east and west side, where the men are kept a great deal upon salt provisions. I think before you extend it again it would be better to wait a twelvemonth and see the result of the late contracts with Mr. Hogarth and Mr. Moir of Aberdeen, and to see whether we have the same complaints of their meat as of Mr. Goldner's, for time alone and change of climate can decide the question; I must say I have my doubts of the meat keeping.

637. In fact, you think it would be expedient to proceed more cautiously in future?—Certainly. You have now restricted it to those two stations, and by and by, if you find it answer, it might be advantageous to extend it to some of the other stations.

638. Sir *F. Baring*.] Do you think that if you were to manufacture the preserved meat in the Government yards, you are sufficiently informed upon the subject to be enabled to guarantee that, after being so manufactured, it would not turn out bad?—No; we should have to get the best advice we could. When Mr. Goldner's establishment was first formed,

formed, the opinions of the leading scientific men in England were obtained, who were decidedly in favour of Mr. Goldner's patent.

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639. You are quite sure that you could obtain the best meat, and that for the sum you have mentioned an establishment might be formed sufficient to prepare it in a proper manner; but have you sufficient information respecting the mode of cure as to feel satisfied that you can guarantee that that mode of cure would answer?—It depends a good deal upon the process that is employed, and also upon the way in which it is carried out. Our own experience of private manufactories has certainly gone against it.

640. Is not Mr. Gillon's case the only one in which there has been no failure?—Yes, there is a reason for that; what he prepares is in the shape of soup and bouilli for the sick.

641. With regard to preserving meat, as distinguished from soup, is it not the fact that no mode has yet been discovered which is perfectly secure, so far as we know?—I believe not entirely secure; that appears from the failure of the very parties who took the contracts since Goldner; there have been complaints against their meat, though not to the same extent as before.

642. Mr. *Fordyce.*] It does not appear by the Parliamentary Paper whether the meats complained of in the 13 cases supplied under the contract of May 1850, and in the other case in which the complaint was made in November 1849, were Goldner's or not; can you state how the fact was?—They were Goldner's, I believe.

643. Is any preference given in the contract to meat reared at home as compared with foreign?—None; it is merely a general open contract.

644. Supposing the Admiralty were restricted from offering tenders for meat reared abroad, do you think that any sufficient guarantee could be provided to show that the meat had not been reared abroad?—The only guarantee you could have would be by having an inspector at the time of packing it up; but that would not prevent their importing foreign cattle for the purpose of curing.

645. Lord *C. Hamilton.*] Have any of these contractors objected to the large size of the pieces of meat?—No; no contractor if he thought the meat would decay would have offered to take a contract with that condition in it, that it was to keep five years, and he was to make good all condemnations under that time.

646. *Chairman.*] Was it not represented to you by some

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of the persons who tendered for the contracts, that they were doubtful about tendering for the contract, on account of the size that was thought desirable by the Admiralty?—I have no recollection of any such statement.

647. The average price of Goldner's two last contracts was about the same?—It was the same; it was 5*d.* for the 9 lb. canisters, 4¾*d.* for the 12 lb. canisters, and 5⅛*d.* for the six.

648. Are you aware of the number of pounds of meat that it takes to fill a 12 lb. canister?—I think the loss in the cooking is rather more than one-third. I think they put in 16 lbs. of raw meat into a 12 lb. canister. I think there is an average of 33 per cent. loss of weight in cooking it; that would make it about 16 lbs.

649. That would reduce the original cost of the meat to a very low price, taking into account the expense of preparation?—Yes.

650. Have you ever calculated what it would be?—I suppose it would bring it down to about 3 *d.* a pound.

651. Taking into consideration the canister and the cost of preparation?—No; that is without the canister; that would be the price paid actually for the meat. The 5 *d.* for the 9 lb. canister of course includes the canister and the process of cooking, and the delivery.

652. In calculating the prime cost of the meat, the expense of the curing process has to be deducted, as well as the loss caused by the reduction that takes place in the meat by the process, which you say amounts to rather more than one-fourth?—Yes.

653. You must first take a fourth from 5 *d.* for the reduction in weight; that would be about a 1¼ *d.*?—Yes; and that brings it to about 3¾ *d.*

654. Then you must take the expense of the cure, and the cost of the canister?—Yes.

655. What do you reckon that at?—It is very difficult to say, getting them in quantities.

656. Probably not less than ¾ *d.* a pound?—It may be, but I cannot speak positively.

657. You think it may be as much as an average of ¾ *d.* a pound?—It may be so.

658. That would reduce the prime cost of the meat to 3 *d.*?—Yes.

659. You have spoken of the very high commendation which was passed upon these meats in the first instance, when they were experimentally tried in 1846; at what price were those

those meats supplied in 1846?—I think at 4½*d.* or 5*d.* It was at first 6*d.*, and then, when a larger quantity was ordered in 1846, it was reduced to 5*d.*

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660. With regard to the "Plover's" meats, which had made the very long voyage which you describe, and which were still found to be good, you did not state the price at which they were contracted for; were they not supplied by Goldner at about double the price which is given under the usual contract?—I am not certain; I think a second supply was sent up to the "Plover" from the stores at Valparaiso; I think that what Captain Pullen alluded to were the provisions sent at that time.

661. Then Mr. Grant is under a mistake when he states that those provisions to which the letter which he read from Captain Pullen referred, were of a superior description of quality obtained from Goldner by special purchases?—I may be mistaken; I have not gone into the detail of it.

662. Mr. Grant said that the price per pound was from 8*d.* or 1*s.*; he was asked what meat Captain Pullen referred to, and he said, "Those are Goldner's meat; he does not state that, but on referring to the precept I find that the 'Plover' was supplied with meat of a superior description and quality obtained from Goldner by special purchases;" have you any reason to think that that was not so?—The "Plover," I believe, was, supplied, on fitting out, with meat specially purchased from Goldner, at prices of from 8*d.* to 1*s.* per lb., but supplies of Goldner's meat were sent up from the stores at Valparaiso.

663. You have stated that you have no doubt that meat might be preserved in the Government Yards; do you think that persons might be found for the public service, having a competent knowledge of the method of preserving meats for the service of the Navy?—One would suppose that in London they could find people who are competent to do so; but still there is a doubt whether they would keep the number of years that you require them; there appears to be great doubt of that, and it can only be proved by time; for instance, you are always obliged to keep your supplies on foreign stations up for 15 to 24 months, and the age of the meat in the canister may affect its being in a good state at the end of that time.

664. So much of the process is known, that you do not imagine there would be any great difficulty in at least instituting experiments to ascertain very shortly the facts whether you could or could not preserve meat?—Certainly,

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experiments might be tried. I believe that there are one or two patents for different ways of curing. Goldner's, I believe, was a different process from the others; he expels the air by means of steam.

665. Mr. Grant has stated that he is somewhat acquainted with the process?—Yes, Mr. Grant went a good deal into it himself, because he proposed some years ago that it should be introduced into the Navy, as far back as the year 1845, and he has been experimenting upon it; therefore he is more acquainted with the process than I am.

666. You think it might be done?—Yes. The naval officers generally entertain an opinion that till you form establishments of your own, you will never have confidence in it; in fact, that you will never have confidence in what you get from contractors. It was the same with regard to our flour and bread. Formerly, there were constant complaints, till we formed our own establishments for the purpose.

667. You were understood to say that you would never be able, under a system of public contract, to obtain the best parts of the animal?—Of course every contractor will try to make as much money as he can out of you. It is with the object of making money that he takes the contract. I know, from a contractor himself, at the present moment, that the hind quarters all come to the London market, and we are supplied from the fore quarters.

668. Would it not be impossible for a contractor preserving meat in this country to supply the best parts of the animal in performing a contract where the lowest tender was taken, and where the price of the raw meat did not amount, after deducting the expenses, to more than 3*d.* a pound?—I should think that 3*d.* a pound was a very low sum for it in this country.

669. You would not be in the least likely, under a contract at such a sum, to obtain the choice parts of the animal?—Not in this country.

670. But with an increased price, do you think it would be equally impossible to have such an inspection as would ensure that the best parts of the animal should be supplied?—At the present moment the price is 7½*d.*, and I do not think you are getting any part of the hind quarters.

671. Might not that be stipulated for in the contract?—The stipulation at present is that it is to be the best meat.

672. By instituting such an inspection as the contract contemplates, might not you ensure the best meat?—You might

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might put into the contract that no part of the animal shall be sold, but that the whole of the prime parts of the bullock shall be cut up, and then see at what price the contractors will be ready to offer.

673. Does not the contract already specify what parts of the animal are to be preserved in the canisters?—I think it only says what are to be excluded.

674. You have stated that you think that for 300*l.* a factory might be constructed?—I have heard people who know something about it, people connected with those factories, say that it is not an expensive business to fit up a place; that very little is required, and that probably 300*l.* might be sufficient for it.

675. Do you contemplate in that expense an abattoir, or whatever is necessary for the slaughter of the animals?—Certainly not. It is only for the apparatus required for boiling down, and the tin shop.

676. Would that be sufficient to provide the supply that would be required?—The supply required at present is only for two stations. I think it would be sufficient for the present limited supply.

677. But it might be contemplated that it would be right to issue those meats to all the Navy?—Then I doubt whether it would be sufficient.

678. The estimate of 300*l.* does not include provision for any building other than for the curing of the meat?—No, only for the preparation of the canisters.

679. You have stated with reference to the ships on the Australian station, that it has been found far more economical to obtain provisions of various sorts on the spot rather than to send them from this country. Have not some of the ships upon the Australian station always been supplied with preserved meats?—Yes, to a limited extent.

680. Have you heard any complaints of those provisions?—No, I do not think I have. The consumption is very small. There are only two ships there, and they hardly ever leave the place, and therefore there has been very little obtained; but what was sent home to this country by the parties who manufactured it there was almost all bad, apparently from the canisters having become rusty, and the air obtained access.

681. Australian meats are now to be got in this country?—Yes, there was one tender. They asked to be permitted to send in supplies to the ships on that station, and a letter was sent out to the senior officer on the station to say that preserved

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served meat might be obtained under the condition that it should keep for five years, but that they were to obtain it by public contract.

682. Is it so obtained?—It is, but to a very limited extent. There are only two ships there.

683. Have there been any complaints of it?—I am not aware of any.

684. Have there been any representations made of its good quality?—I think not.

685. Have you seen in print a letter or two from Captain Yule, speaking of its quality?—I know that two years ago a letter came, but I have not seen anything lately.

686. Were there not letters to the Admiralty stating that those meats were satisfactory?—I am not sure; I can refer to the letters if the Committee wish.

687. Mr. Gillon is the person who has been so successful in the preservation of soup?—There has been very little condemnation of soups; wherever the meat is in small pieces and there is a great deal of liquid, the air is thoroughly expelled.

688. In what sized canisters is it put up?—In 1 lb. canisters.

689. Do you know at what price that is supplied?—I think 6 *d.*; I think Gillon's last contract was for 5,000 lbs. of boiled mutton, 7 *d.*; and 1,000 quarter pints of concentrated gravy, $4\frac{3}{4}$ *d.*

690. Do you know where that is prepared?—That is prepared at Leith.

691. Mr. *Miles.*] You stated that there was no order sent to the consul at Galatz, and that no inspection whatever took place at Galatz till 1851?—It was either 1850 or 1851 when the consul was first written to.

692. As regards preserved meats in England, the Committee were informed by Mr. Grant that since 1851 an inspection has taken place which did not take place previously. It is stated by Mr. Grant in answer to Question 366, put by the Chairman, "In the contracts we have taken in 1851, the Admiralty thought proper to direct an inspector to visit all the private manufactories of preserved meats, of those individuals that have entered into contract with us. They have sent responsible officers to inspect and report to them everything connected with those manufactories, both as to the manner of putting up the meat and the quantity of meat which there was then under preparation for Government service;" has that been ordered in consequence of the different surveys that have taken place, and the number of condemnations

tions which have taken place of preserved meats?—It was so; and it was thought advisable under the terms of the last contract and new contractors to request an officer living upon the spot to inspect.

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693. What officers have been sent particularly to inspect those establishments?—The commanding officer of the coast guard at Aberdeen was requested to go and inspect both Mr. Moir's and Mr. Hogarth's factories; and Lieutenant Pitt, the naval transport agent at Leith, was also upon two occasions requested to inspect Mr. Gillon's factory, to examine the meat put up, and to report whether he was of opinion that everything was going on satisfactorily.

694. Are not the persons who receive the meat into store much more competent to give an opinion than any naval captain in the service?—No doubt; but we cannot spare them from their duties; they can scarcely get through the day now, from the pressure of work there is upon them.

695. But if the Government should determine to continue the supply of this description of meat, do not you think there should be an inspector appointed who is thoroughly conversant with meats, and with the preservation of meat, to make the inspection efficient?—It would be an additional check upon the contractor; at the same time it is taking a certain amount of responsibility from your receiving officers themselves. The receiving officers who understand meat, and who are men of integrity, and who have a very responsible duty to perform, perform their duty with great judgment and attention; and I think it would be better to leave the thing in their hands rather than to have a person constantly residing at any factory. But I think that a periodical or monthly inspection, just to see what is going on, would be desirable as a check upon the contractor.

696. You were understood to state that you had inspected a factory yourself; under whose process was that?—I believe it was not Mr. Goldner's process; I believe it was the old process.

697. You have not had an opportunity of inspecting any manufacture under Goldner's process?—No, I have not.

698. Was not the reason for preserved meats being so largely issued to the Navy, that the soup and bouilli which had been before issued was not liked by the men?—No, I do not think that soup and bouilli was ever an article of general victualling in the Navy; soup and bouilli was only given as a medical comfort, but what was called boiled beef was introduced

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introduced as an article of victualling as a substitute for salt beef.

699. How long does soup and bouilli last good?—The soup and bouilli is good for years. I believe some people have canisters now that they have had for 20 years; I recollect having it in the Pacific for three years. Where you have a liquid, with small pieces of meat, you are able to draw the air permanently out of it.

700. With the difficulties which appear to exist with regard to preserved meats, would it not seem right, after the experience we have had, rather to adopt soup and bouilli in the issues than preserved meats?—I hardly think the allowance would be sufficient for the men. I think the allowance of three quarters of a pound of soup and bouilli would not answer the purpose; I think they require something more solid.

701. *Chairman.*] You were examined before the Committee in 1848, upon Army and Navy Estimates?—I was. I had just come to the Board at that time.

702. Was not the expense of victualling the men, per head, then much higher than it is now; you stated that it was then 17 *l.* 15 *s.* 4 *d.* and one eighth; do you recollect what it is now?—It has decreased, although there has been an increase of provisions; but it will always vary, because it depends upon the price of the yearly contracts.

703. Is not it less now than it was then?—Properly speaking it ought to be more, because we have given an increased supply to the men; but if the price in the contract has fallen, of course it will be less.

704. Are you not aware that it is considerably less?—I am not aware without going into the calculation of the prices of the last contracts.

705. It was stated before the Committee on the Naval Estimates that where preserved meats had been adopted, even for one day in the week, it had been found of great benefit to the men?—It was so.

706. One of the advantages specified as arising from the issue of this meat one day in the week was, that it was not necessary to keep so very large a stock of salt meat?—Quite so; that is the case, because whenever you increase the supply of preserved meat of course you correspondingly reduce the quantity of salt meat.

707. During the time that the system was adopted of issuing this preserved meat, you were able to keep a less stock of salt provisions?—Certainly.

708. Upon

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708. Upon that account it would be advantageous for you to resume the general issue of preserved meat one day in the week, both for the health of the crews and for the object of enabling you to reduce the stock of salt meat?—Yes; it was more with regard to the health of the crews and the comfort of the men that it was done, than for any other reason.

709. Therefore, if by forming a Government establishment for the preserving of this meat you could ensure its being good, it would still be very desirable that it should be issued to the Navy on account of the health of the seamen, at least one day in the week?—I always looked upon it as being very advantageous to the service to try to get quit of salt beef, but not of pork. The men do not like salt beef, and it was thought that if we could substitute preserved beef, and make certain of its being of good quality and condition, it would be advantageous both on account of the comfort of the men and also on account of their health.

710. It was originally your opinion that the use of these meats would be desirable?—Certainly.

711. And you still think so?—I think so still if you can ensure their keeping in a proper way. But I must say that the last results seem to make it a very doubtful question whether they will keep the time that you wish.

712. Thinking so still, you would be of opinion that it would be a desirable object to attain if by experiments it could be ascertained that you can produce an article that would be free from the objections to which this article has proved to be liable?—Yes, except that there would be difficulty in carrying it to such an extent in case of a sudden out-break of war, because in that case the establishments which you had formed merely for a time of peace for a certain number of men, could not supply sufficient for the increased number of seamen that you would require in war time, and then probably it would be necessary for you to go to public contract in the same way that you would have to go for salt meat.

713. But the great bulk of those men might, in case of war, be employed at not very distant stations?—Yes; but even then they must be provided with salt meat or preserved meat.

714. Therefore in that case they would only fall back upon the salt meat?—Yes; but then you alter your system of victualling the fleet

715. That you have now done in consequence of the complaints

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plaints of these meats?—We have only reverted back to what was done before, except upon two stations.

716. And in case of war, you might revert back again to the former system in the same way?—Certainly.

717. You recollect probably that Lord Auckland stated to the Committee on Naval Estimates that he believed it was not possible to procure provisions of better quality than those which were issued to our sailors?—It has always been the wish of the Admiralty to get the best of everything; I do not believe that the provisions were at any former time so good as they are now.

718. You think they are even better than in 1848?—I do not know that they are better than they were then, because the meat at that time certainly was remarkably good; and so it is now; indeed so much has been said against the Naval Department about the badness of the naval provisions that I should be glad if the Committee themselves would examine them, or appoint some persons to do so; because I think we have the best of everything, and the greatest care and attention is devoted to the subject.

719. The surveys which have gone on with respect to these preserved meats have gone on equally at Cremill Point, at Gosport, and at Deptford?—Yes.

720. Can you explain why it is that we have heard so much of the meats at the Clarence Yard, and that we have not heard of the same exposures with reference to the other yards?—I cannot account for it except that parties belonging to the public press have had access to the stores, which they ought not to have had, and the most has been made of it, without knowing or being aware of the circumstances.

721. You attribute it to their having some communication with the public press at the Clarence Yard?—Yes, no doubt of it.

722. But the same substances have in some instances been found at Cremill Point, have not they?—I do not know a case; the only cases that we know are the 67 cases on board ship, and the 13 cases at the Clarence Yard. There is a large quantity there now which has been brought from foreign stations to be surveyed.

723. Do you remember the number of pounds which were thrown into the sea at the Clarence Yard inspection?—The whole quantity condemned at the Royal Clarence Yard, by special survey, has been I believe 42,959 lbs.

724. And that quantity Mr. Grant said he believed to be exclusive of the 2,000 canisters taken away by Mr. Goldner?—I believe

—I believe so. At the special survey which was held there were 42,959 lbs. condemned; and prior to the special survey there had been condemnations which amounted to 13,299 lbs. I am not very conversant with the detail of the actual number of pounds, because that is the special duty of the comptroller of victualling, but this is his return.

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725. Were those condemned provisions that Mr. Goldner would not withdraw taken out to sea?—They were taken out to Spithead, and thrown overboard.

726. What was done with the condemned provisions in the other yards?—I think what was condemned was destroyed at the Royal Clarence Yard; and at Deptford I think it was also destroyed.

727. Were not the condemnations at Cremill Point even larger than at Portsmouth?—At the Royal William Yard the whole amount of provisional condemnations by special survey amounted to 111,000 lbs., and it is very odd that a great part of that meat was meat received under special inspection. There was 125,000 lbs. received at the Royal William Yard, and we called for a return of the parties present when that was received. The parties present were, the master attendant, the storekeeper, and some of the working people of the yard. Captain Rich, in his letter, states that he happened to be present with Lord George Paulet, the captain of the "Bellerophon," and that they each partook of it; they opened 22 canisters, and it was all pronounced to be excellent; that was in December; and in May it was in decay. At the same time there were 130,000 lbs. in store at Deptford; the officers of the "Fisgard" were ordered up to assist the officers of the Deptford Yard; a medical officer was ordered to be present; the comptroller of victualling, Mr. Grant, went down himself; 25 canisters were taken indiscriminately; the meat was reported perfectly sound, good and fat, and in six months a considerable portion of it was condemned at Plymouth as being in a state of decay.

728. Mr. *Miles*.] How long had those canisters which were so examined and found good, and which were afterwards found bad, been in store?—They were just delivered from the contractor; they were coming to be delivered in for receipt, and this special survey was ordered in consequence of complaints which we received, and which we could not understand; the yard officers stated that they never saw finer meat come into the yard; on the other hand, we had complaints from foreign stations, and condemnations of the meat from being decayed; yet the yard officers, who are men of integrity,

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integrity, had assured us that the meat was good and wholesome when received: therefore it was upon those representations upon one side that the meat was perfectly good, and the condemnations from abroad on the other, that we, ordered other officers to be present at receiving the meat; and they reported the whole was good, sound, and wholesome, yet, in six months, we had this very same meat condemned from being decayed, from what cause we cannot say, although every precaution was taken respecting it.

729. From any reports made by those officers who received the meat as to the state of the canisters, you have no reason to give why the meat should become bad?—No; the only reason that can be assigned is, that it must be in consequence of the air not being thoroughly driven out of the heart of the meat. I can assign no other reason; it has puzzled us all to know what was the cause of it. We were much surprised, after taking such precautions, to have condemnations.

730. What sized canisters were those?—All sizes; 6 lbs., 9 lbs., and 12 lbs., in proportion.

731. Taking the whole quantity delivered in sixes, twelves, and eights, was there about the same proportion of each size found decayed?—No; the decay is more in the nines and twelves, but I forget the proportion.

732. Can you fill that up?—I think so.

733. Admiral *Stewart.*] Do you recollect a visit of inspection which the Board of Admiralty paid to Deptford in the autumn of 1851?—Yes.

734. Upon that occasion, were not there several cases of preserved meat of each contractor's manufacture taken at random from a number of canisters, and opened in the presence of the members of the Admiralty Board?—I forget whether there were or were not; I know we saw the salt meat opened, but I forget whether the preserved meat was opened. I might not have been present at the moment. I now recollect that such was the case, and what was opened was in a good state.

735. Mr. *Miles.*] A return has been given in to the House of Commons relative to the supply of salt meat to Her Majesty's ships on the West India station, from which it appears that there had been a quantity of extra issue, to make up the requisite quantity per diem to the men; and that likewise, in one instance, there had been a vast quantity thrown overboard (namely, in the case of the "Alarm"), and a quantity sold on Her Majesty's account: can you tell the Committee what

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what you suppose to be the reasons of those?—I have not seen the documents. When I saw this return to The House I sent for the paper, with reference to the quantity thrown overboard and the quantity sold. That I have not yet seen. With regard to the extra issues, that was founded upon an order first promulgated by the Admiralty in the year 1846, that whenever the salt meat boiled away to the amount of one half, the proportion was to be made good to the men; and this I should suppose is in consequence of that order. The meat issued in the "Alarm" appeared to be of the date of 1847. Therefore meat of that age, four years old, will always boil away more than one-half. The average boiling away of meat in the first year is generally about 33 per cent., and it goes on increasing the second year to above 40 per cent., and in the third year it is generally more than one half. It is according to its age that it takes place; and therefore this extra issue has been to make good that boiling away.

736. Is not it in time of peace of the greatest moment, as far as economy is concerned, to have the smallest quantity of salt provisions in store at the different stations?—Quite so. It depends upon the quantity that we are obliged to keep up at our foreign stations, and also upon what may be taken out of store by the ships upon those stations. Take Halifax, for instance: Halifax is victualled for ten months for about 1,000 men?—A ship may go there or perhaps three ships may go there, we do not know which it will be. The flag-ship is generally the only ship that is there in the summer, and the crew are on fresh meat victualling, but there are three other ships usually employed upon the station, and they take their provisions from Halifax. There is the ship employed in Newfoundland, and the ship employed in the St. Lawrence, and the ship employed in the Bay of Fundy for the protection of the fisheries. But if those ships do not go there, then those provisions sent out for the purpose of supplying those ships, not being drawn out of store must remain there until the next year and become over age. That is a difficulty arising out of the exigencies of the service, in consequence of which the meat may remain in store a certain time and not be drawn out because there is no ship to take it, and therefore the first ship that goes there takes the oldest meat out of store. In every station, in Hong Kong and Malta, and all other stations, they are always obliged to use the old meat first, because the last supply sent from England must remain in store, and that which is longest in store must first be taken out. We try to meet every

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every case as far as we can, but sometimes there is very great difficulty in doing so, and cases of inconvenience from old meat we cannot help.

737. Taking Halifax, how often does the Admiralty receive reports from the victualling station at Halifax?—Every month from every station.

738. In judging as to the necessity of increasing your provisions into that victualling yard, upon what reports do you go?—Upon the expenditure upon the average of the last years. For instance, when the monthly return comes home we see the quantity in store, and the quantity that has been drawn out, and the amount on the average of the year's consumption; and it is upon that that the supplies are ordered to go to foreign stations; we do not send out a large lump to Halifax, or any other station, but we only send out sufficient to make good the supply depending on the quantity drawn out, and the number of men to be victualled on that station.

739. As the Committee upon the Navy Estimates entertained a hope that the supplies of salt provisions would be reduced, does not it seem extraordinary that there should be issues of provisions so old as some of these appear?—There was a very good reason. In 1846 you had about 44,000 men employed, and suddenly they were reduced to 39,000 men; accordingly you had an accumulation of salt meat larger than you required, and the introduction of the preserved meats increased that accumulation, and for the last two years you have taken your supply of salt meat out of that; therefore of course the supply that you had became old, because you had an accumulation for a larger number of men than you subsequently employed. Again, it depends upon the number of men employed upon each foreign station; if you reduce the number by withdrawing ships, then of course the store at the station will be over supplied; therefore there is a difficulty in keeping an exact equilibrium to meet the varying exigencies of the public service. The store of provisions abroad has been much reduced to prevent any accumulation of such provision; at the same time we cannot run the store too close so as to risk the ships being without provisions.

740. Do you suppose from the meat issued to the "Alarm" being of so old a date that it had been issued from the station before to another ship, and returned again?—No, I think not. Immediately the motion was made in the House of Commons, a letter was written to Halifax, desiring them to give a detail of what had been supplied to the "Alarm;" but the

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the return from the "Alarm" did not give the marks of the casks, and therefore we cannot exactly trace the meat which was complained of; but it appears that one of the transports which came from the West Indies had landed some casks of meat at the Halifax yard of an old date.

741. When a supply is issued to a ship, does the purser take an account of the age?—Yes, every cask is marked.

742. Does he supply to the men the oldest meat first?—Always; that is the positive instruction; and the same from store. The oldest meat must go out of store first, or when the return comes home it is immediately detected.

743. In the evidence of Mr. Grant, in speaking of the additional half pound which is supplied, he says, "We find that that is subject to very great abuse: in the first place, the object of the cook is to boil away the meat as much as possible, because he obtains a larger quantity of what is termed 'slush,' for which he is paid; and in some ships he is paid a very large amount; he is sometimes paid as much as 125*l.* and 150*l.* for his slush. On the other hand the seaman, if he finds the meat boils away to half a pound, claims the additional half pound; but in fact he does not take up this half pound, he saves it, and he is paid at the rate of 4½*d.* a pound for it; and the result is, that during the last two years we find that we have paid the seamen upwards of 50,000*l.* for their savings in salt meat alone, showing that they really did not want the meat, for they have saved it; and that is increasing gradually." Now that being the evidence of Mr. Grant, do you think that is so?—Not entirely, unless he includes the ordinary savings, and the allowance for waste in boiling. I think Mr. Grant refers to two questions; the first is with regard to the payment for savings. By the Queen's Regulations and the printed Instructions of the Admiralty, every man who leaves behind his provisions is paid for it. There is a fixed tariff, according to which he is paid for everything; salt meat is 4*d.* a pound. If the men in the mess do not take up their meat, of course they get paid for it; that is the established rule of the service, therefore I do not see that we can make any change in that. With regard to the "slush," that is another thing.

744. Mr. Grant supposed that they are allowed 2 lbs. extra upon the 4 lbs., when it is reduced half in the boiler, and that they do not take up those 2 lbs.?—That I believe is wrong; because, as far as I recollect, it is to be issued in kind, and not to be considered a saving.

745. So

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745. So that that extra issue has to make up the diminution in quality for the boiling has not gone as money to the sailor?—No, not as money. At the same time it would make very little difference; because the price of salt meat being about 4 *d.* a pound to the Government, it would make very little difference whether they received the article in weight at the price, or whether they received the money.

746. So far as I understand Mr. Grant's answer, it appears that owing to the regulations, there may be a connivance between the cook, the messer, and the sailor; but you think that impossible by the orders?—Except in this way, the regulation which has lately been made was in consequence of what took place on board a ship which I happened to be appointed to; the case of the "St. Vincent"; it was drawn to my notice in a letter from Mr. Grant, who was storekeeper of the yard at the time. He drew my attention to the large sum of money that was claimed by the cook. His claim arose in a ship of the line, from 96 days' victualling of salt meat; the bill that was paid to the cook was 111 *l.*, and upon that I represented to the Admiralty that I thought it illegal that the cook of a ship should have this immense profit taken from the messes belonging to the men. I mentioned it subsequently to the Board, and the regulation was placed upon this footing, that no payment should take place to the cook, but that the whole of the fat which came from the provisions of the men, should be returned into store and should be paid for at a certain fixed price, and that half of that should be paid to the cook and a proportion to the men under him for doing the duty, and that the rest of the sum should be divided amongst the messes of the ship's company, from whom the slush was actually taken; but I must admit that I think the system should be altered, for this reason, that it is evident that by this regulation it is an encouragement to the cook to boil the meat too much in order to obtain slush, and it is an inducement to the men to obtain an extra allowance by the boiling away, and it is in contemplation to make an alteration in consequence of seeing the opportunity that has been taken for doing this, because although the men may not actually do it, still it is an encouragement to them to do it, and therefore it is better to take away any inducement to do that which is not right.

747. What alteration do you propose?—It has not been submitted to the Board, but it is proposed to give the cook an additional allowance. The cook's pay is just now about 36*l.* a year. I think some little addition should be given to the

the pay, for his encouragement, if he discharges the duty in a faithful and proper way, instead of making it a variable payment, depending on his boiling away the meat to obtain the slush or fat.

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748. How would you appropriate the slush?—Let that go into the Government stores, to be sold and credited to the Government.

749. *Chairman.*] With regard to the extra allowance for waste, might you not give the men an ample allowance, and allow nothing for the boiling away?—It would be better. In the case of the allowance of spirits, when that was reduced, the allowance of salt meat was increased, because it was a complaint with the seaman that he had hardly enough to eat. The question was, what has been done in the mercantile marine? we referred to Green and Wigram, and to houses in Glasgow and Liverpool, and we found, without exception, that the allowance of salt meat was a pound and a half, and we were only giving three quarters of a pound. Then our allowance was increased to a pound. The allowance on board the large companies' steamers that run from Southampton to the West Indies is a pound and a half of salt meat.

750. Do you think that to give some additional payment to the men, instead of the extra allowance for waste, would be a cheaper and better arrangement?—I think the allowance for waste ought to be done away with.

751. Admiral *Stewart.*] As compared with the allowance to the merchant seamen, is not the Navy allowance of all provisions fully superior?—It is decidedly superior to everything else; but the merchants find it advantageous not to restrict the men to any specific allowance; it is nominally a pound and a half, but they give them the free run of the casks and the free run of the bread-room; it is nominally a pound and a half, and if that quantity is expended in the course of a month, they get no more; but by adopting the above system I believe the men do not consume the full quantity of provisions; therefore it is a saving to them to throw open their stores to do as they like in common and take what they want.

752. *Chairman.*] That would be more practicable in a small vessel than in a man-of-war?—It would be more practicable in a small vessel; it could not be done in a man-of-war, where you have a thousand men, and because you would never be certain how long provisions would last.

753. Admiral *Bowles.*] Have you any reason to believe that

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American salt meat has been purchased by contractors at Cork, and supplied by them to the Navy as Irish provisions? —It was reported to the Victualling Department as such by parties who were in the habit of procuring and repacking it for that purpose.

754. Mr. *Fordyce.*] Do the military upon foreign stations ever draw supplies of salt provisions from the naval stores?—At Gibraltar and Malta, and in the West India Islands they have a small supply.

755. Is the manufacture of biscuit, and flour, and cocoa considered satisfactory?—Very much so indeed.

756. Has there been much complaint of those articles?—There has never been a complaint with reference to the supply of those articles. I do not know of any complaint.

757. *Chairman.*] With regard to cocoa and bread and flour, if you contracted for them, might you not get them at a lower price than you can manufacture them for?—I doubt that. The price is very low; in the West Indies (Jamaica) we have had a difficulty about the bread when sent out from England, it did not keep well in that climate. We had to purchase in Jamaica, where there is a steam manufactory, but we have not been able to get the price down to the price of biscuit sent from England. We thought that baking it fresh in Jamaica might be better than sending it out to be retained in store there.

758. But those articles which you manufacture at home occasion no extra expense?—No; you get good wholesome biscuit and flour; nothing can be better; and cocoa in the same way. You buy the cocoa by contract by sample, and that is ground in the yard and made into cakes.

759. Mr. Alderman *Humphery.*] How long does your biscuit keep without getting mouldy?—Generally about a twelvemonth.

760. Mr. *Fordyce.*] Do you know whether any of the foreign pork which has been supplied to the Navy has been considered superior to the home bred?—The Dantzic and Hamburgh, and some lately received from Brittany, are considered very superior to anything we received before.

761. Is that pork or beef?—Pork.

762. Sir *F. Baring.*] Do you know whether the bread complained of in the "Alarm" was foreign bread?—We have not been able to trace; there was a foreign supply of meat as well as English supply at Halifax; from the ship not giving the marks on the casks, we have been unable to trace whether it was foreign or English.

763. Do

763. Do you believe that in any case anything has been neglected which could contribute to the goodness of the provisions; has the health and comfort of the men been at all sacrificed, with the view of saving money?—Not in the slightest degree; the real wish and object of the Admiralty has been to get the best of everything, without being extravagant, and very great attention has been given to the subject.

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764. When a new arrangement was made in consequence of the change in the grog system, where there was any balance was not it always given in favour of the seaman?—Always; in every case the balance was given in favour of the seaman.

765. How long have you been in the Navy?—I have been in the Navy about 33 years.

766. Do you believe that the provisions and comforts of the seamen are better or worse now than when you entered the Navy?—They are decidedly improved.

767. Mr. Alderman *Humphery*.] Have there been any complaints of the pork diminishing in boiling very much since there has been free trade in provisions?—Not more than usual; the pork is considered remarkably fine, and is looked upon as superior to what we had before,

768. Have you had any American pork?—Yes, we have had American, and Dantzic, and Hambro', and Brittany.

769. There have been no complaints of the pork of any of those countries?—None.

770. Nor of the beef either?—No.

771. Sir *F. Baring*.] Can you tell the Committee when the foreign pork was first allowed to be issued, what were the grounds upon which the Admiralty allowed that to be done?—Our advertisement of the salt meat contract stated that it was to be the cure of the United Kingdom, but representations were made to the victualling department that parties who had contracted for the cure of the United Kingdom were getting American meat re-packed, and branding it with the Irish brand, and passing it into our yards as Irish meat. Those representations were made in 1846, and subsequently in 1847; and a party came forward and stated that he had been actually employed by certain parties who had been packing this meat. It was therefore submitted by the comptroller of victualling to the Board in 1846, that the terms of the contract should be altered, and that it should be made merely an advertisement for salt meat; and upon that the advertisement when issued in 1847 was generally for salt meat.

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772. Do you recollect, also, that there was a submission; that in consequence of the famine in Ireland, the Irish pork had been very much deteriorated?—Yes; and we also wrote to the leading shipowners in London and Liverpool to know what meat they were then using on board their ships, and the report received from the principal houses in Liverpool and the officers commanding the packets was, that in almost all the ships they were using foreign meat. In London the principal shipowners were using American meat, which they said they considered superior to the Irish; and taking all those circumstances into consideration, foreign meat was allowed to be put into the advertisement.

773. Can you give the Committee the submissions of the comptroller of victualling at the time?—Yes.

774. Mr. Alderman *Humphery.*] You think you have not had worse meat since you have thrown it open?—Certainly not. From the statements of those who have been for years in the practice of receiving meat in Deptford Yard, I do not think that at any time there was such fine meat in store as at present. The Dantzic and Hamburg is exceedingly superior.

775. Mr. *Fordyce.*] Was there not an effort made to supply the Navy with preserved potato?—Yes; preserved potato has always been made an article of issue with preserved meat.

776. Has that failed?—No; the reports of it were very favourable, but it has ceased to a great extent in the general victualling of the Navy, because the preserved meat has ceased except upon the stations which I have stated, the African station and the Pacific. Upon those stations preserved potato still continues to be issued occasionally; but it is very difficult to work out all those improvements which have been introduced for the benefit of the seamen, when you come to deal with 39,000 men; it requires a great deal of attention, and causes much anxiety.

777. Mr. Alderman *Humphery.*] How long do you require in your contracts that the beef and pork shall remain good?—The warranty is for a twelvemonth.

778. If it turns bad within the twelvemonth you have the power of calling upon the contractor either to exchange it for good, or to pay you for it?—Yes; but that never happens.

779. Have you ever had any difficulty in getting the money?—I do not know of a single case in which we have had

had to call upon a salt meat contractor; certainly not within the twelvemonth; the only difficulty is after the twelvemonth, when it becomes aged; and there is the boiling away.

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780. Mr. *Fordyce.*] Do you know whether the French Navy is at all supplied with preserved meat?—I believe not.

Martis, 23° die Martii, 1852.

MEMBERS PRESENT.

Sir William Jolliffe.	Mr. Yorke.
Sir Francis Baring.	Mr. Strutt.
Mr. Gwyn.	Admiral Stewart.
Lord Claude Hamilton.	Admiral Bowles.
Mr. Fordyce.	

SIR WILLIAM G. H. JOLLIFFE, BART., IN THE CHAIR.

Commander *George Farquhar Morice*, R.N., called in; and Examined.

781. *Chairman.*] DID you formerly hold a situation in the Victualling Yard?—I held the situation of Master-Attendant in the Victualling Yard at Deptford.

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782. For what length of time?—Seventeen years.

783. From what period?—From 1833 to May 1850.

784. During that time several experiments were made, as to the adoption of preserved meats for the victualling of the Navy?—Yes, as far as receiving them from contractors; we made no experiments at the Deptford Victualling Yard, in making preserved meats.

785. You made experiments as to their use by issuing them to ships under particular circumstances?—Yes.

786. Ships that were going on long and distant voyages?—Yes; I think in 1846, or about that period, we commenced issuing preserved meats as an article of food for the Navy.

787. At that period was the use of those meats found to be beneficial?—I am not aware what the benefit was on board

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ship, because I had not an opportunity of trying them myself, but I have heard officers state that they considered them a very excellent thing for the use of the men on board ship as an article of food, to give them fresh meat once a week.

788. In the early part of 1846 there were no complaints of those meats turning corrupt in a short period?—None, that I am aware of.

789. There were none returned into store at Deptford?—A great many were returned into Deptford as returns from ships, and occasionally we found some of them bad; that was on account of the canisters being broken; but we had no complaints prior to that time, that I am aware of, of any of the meats being found bad on board ship.

790. Up to the period of May 1850, when you left the victualling yard at Deptford, were there any complaints of improper substances being found in the canisters?—Not that I am aware of; the only complaint I ever heard made of the preserved meats was from one of the Polar expeditions; they said they had rather more bone in the meat than they ought to have had; but there were no complaints as to the bad quality of the meat.

791. Sir *F. Baring*.] Which Polar expedition was that?—I think that was Sir James Ross's.

792. Lord *C. Hamilton*.] Do you know to what contract that complaint applied?—I cannot speak positively as to the contractor.

793. Sir *F. Baring*.] Was that the complaint in 1849 which you are speaking of?—No, it was after Sir James Ross came back, before 1849; I think they stated that they had rather more bone in the canisters than they ought to have had, implying that there ought to be no bone at all.

794. *Chairman*.] We have heard that there was in November 1849 a complaint, the first that was made, of improper substances being found in the canisters; do you recollect that circumstance?—I do not.

795. Do you know anything of the process by which those meats have been preserved?—The process that I have seen of preserving meats is to boil them in canisters to a certain extent, and then hermetically seal them. I went up to Mr. Goldner's establishment in Shoreditch once with the late Admiral Sheriff, and with Sir John Hill, to see how they preserved them there; he had an establishment in Shoreditch five or six years ago; we saw the mode of preserving meats there, which appeared very simple, and seeing it done there, I then tried

tried it in my own house on vegetables, and things of that kind, and in some cases I succeeded very well, in other cases I failed; that was from not hermetically sealing the canister at the proper time. I have preserved peas in my house for I think some two or three years; and they came out of some of the canisters perfectly good, others again were in a state of decomposition, but I attribute that entirely to my not hermetically sealing them properly; I merely did it to try whether I could do the thing myself.

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796. That you did from having witnessed Goldner's process?—Yes; I was not aware how they did it, till I saw the process carried on there.

797. Do you know the period when Mr. Goldner removed his factory from this country to Galatz?—I am not aware that he ever removed his manufactory from this country; he always manufactured in London, I believe; but he had an establishment at Galatz. I think, about the year 1846 or 1847, he commenced curing there. At that time, I think, he got a very large order from Government, and we had large quantities of meat sent from Galatz to Deptford.

798. That was under the contract of 1844?—Yes. But he had a great increase to his contract about that time, after he went to Galatz.

799. What was the nature of the examination that took place at that time, when you received meats into the store?—We generally opened so many in a hundred; sometimes one, sometimes two or three. We never had any suspicion of the meat being bad, otherwise we should have opened more of them; but preserved meats being of that nature that if the canister is opened of course it is spoiled, we never opened so many of them as we did in other provisions, which amounted always to 10 per cent. But we could always tell almost from the shake of the canister what the state of it was. Those who were practised surveyors could tell whether the meat was in a good or bad state, by shaking it.

800. Was it frequently the case that you found it in a bad state?—I never saw a bad canister of meat opened at Deptford Yard.

801. You mean upon the examination that took place on its being received?—Upon its being received I do not remember ever seeing a bad canister of meat. We were very particular with it; we not only opened the canister, but threw the contents out into a large dish, so that everybody might see it.

802. But under the surveys which have taken place when

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meats have been ordered to be surveyed after being at sea, have you found them in a bad state?—On their coming from sea we have found canisters bad; but I attribute that entirely to the canisters being broken and the air getting into them; but whenever the canisters were in that condition we very seldom opened them; we buried them, because the smell was so offensive, that we never opened them to see what the contents were.

803. But of course some that have been in the worst state of decomposition have been opened under those surveys?—Yes, in the worst state; but whenever they got bad they were, generally speaking, so offensive that we seldom opened them to examine the contents; we always buried them.

804. Has your system of burying them the moment they were ascertained to be offensive been acted upon since you left the yard?—I do not know. That was previously to my leaving the yard.

805. You have never been at any of the surveys since you left the yard?—No; I have been away from London since I left the yard in 1850.

806. Who succeeded you?—Mr. Pearn, a master in the navy.

807. Lord *C. Hamilton.*] I understand you to say, that when they were very offensive you did not open them, and therefore you did not know whether the contents had originally been of the proper quality of meat or not?—No, I did not.

808. And you cannot tell whether there was any offensive matter in those which were thus buried?—I could not tell whether there was anything improper in the canister further than that the meat was decomposed.

809. Was that burying ever carried on to any great extent?—Not to any very great extent; we very seldom had condemnations; they were to a very small extent indeed compared with the quantity of meat that we received.

810. Mr. *Yorke.*] I see that, by the terms of the contract, the officers of the respective yards are to have the power to open as many canisters as they think proper, for the purpose of seeing that the contents are conformable to the terms of the contract; and another condition is, that there is a fine equal to the value of the canister and its contents for every canister found on delivery or at any time within five years from the date of the supply to be deficient in weight, or to contain any bone, offal meat, intestines, vegetables, or other prohibited substances?—Yes.

811. The

811. The sort of examination of which you have spoken in your evidence is, that which you were permitted by the contract to make as soon as they were sent into store?—Yes.

812. It does not allude to any returned provisions or to any special survey on account of any bad substances being found in them?—Yes.

813. It was provided for by the terms of the contract, in order to enable you to see that the contract was complied with?—Yes.

814. Mr. *Gwyn.*] Did you discover any bad substances in those canisters which you used, such as tongue or offal?—Not any.

815. It was all pure meat?—All pure meat. I never saw any improper substances in any canisters which I ever examined at Deptford.

816. Mr. *Yorke.*] Do you think that any further obligation can be imposed upon the contracting parties than the contracts themselves disclose now?—I think not; that the meat shall be required to keep good for five years: and I have no hesitation, from my experience, to say that if the meat kept good for twelve months it ought to have kept good for ever.

817. From your experience, and from all that has come to your knowledge, do you think that this mode of victualling the Navy is a good or a bad mode?—I think that to have one fresh meal in a week on a long voyage must be a very good thing.

818. But seeing that in this mode there was so much found bad and condemned, do you think that this is a safe and good mode of victualling the Navy?—Provided the meat cannot be cured it is not a good mode.

819. Do you think it is sufficiently shown that it can be cured with sufficient certainty?—I think so; only that in that method you cannot cure a very large quantity so well as a small. I do not think you can extract the atmospheric air so well out of a large canister as out of a small canister. I have eaten meat which has been 13 years cooked in a canister of that sort; and if air is properly extracted the meat will keep for ever.

820. The question refers to preserved meats?—Those were preserved meats to which I allude.

821. *Chairman.*] You think, notwithstanding all that has transpired, this is generally a good and safe mode of victualling the Navy?—I think so, if proper precautions are taken to see that the meat is of good quality.

822. Mr.

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822. Mr. *Yorke.*] What precautions would you suggest to be taken in future, and by means of which you think this large amount of condemnations would be avoided?—There should be a Government officer to inspect the curing.

823. Then if Captain Milne has said that a Government officer is not necessary for that purpose, you think he is under a mistake upon that subject?—As an old officer, I think Government cannot be too particular in seeing that what provisions they get are of a proper quality.

824. You think that if an inspecting officer were appointed to visit the curing establishments, it would afford better security for the quality of the meats than is afforded by the terms of the contract?—I think so.

825. Have you anything to suggest with regard to the canisters in which the meat is packed?—I would suggest that if the canisters were made of stronger tin, they would bear the packing better, and they would be less liable to yield to the pressure of the atmosphere; I think the iron should be of stronger plate, so as to resist the pressure of the atmosphere; when the iron gets corroded, the air gets in and destroys the meat.

826. You suggest that the wash of tin should be thicker than it is now?—Yes, and the plate also stronger.

827. *Chairman.*] Do you remember the period at which the terms of the contract were enlarged with regard to these preserved meats?—I think it must have been about 1846; he had a large contract, I think, for 800,000 lbs. at one time.

828. At that time the terms were that certain descriptions of meat should be excluded?—Yes, the meat was to be all of the prime parts.

829. Excluding various parts by name which in the present contract are excluded?—Yes; no offal or entrails were to be allowed to be used.

830. That is specified now in the contract?—It is.

831. It also specifies that an examination may take place at the time of the process of curing?—Yes, which was never attended to; no officer was ever sent to examine any of the meat in the process of preserving.

832. I understood you to say in answer to a question put to you just now, that you consider that to be a necessary precaution?—I think that ought to be a precaution; I think, on the part of Government, they should have an inspecting officer to look at the meat at the time of curing, so that he should

should see that the meat was properly attended to, and that the proper quality of meat was put in.

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833. Mr. *Yorke.*] Do you think that an alteration might be made in the terms of the contract, by which the meat should be supplied fresh from the contractors' establishments to ships going out, instead of being kept in such bulk in store in the dockyards?—I do not think that that would materially affect the thing; if the meat is good when it is taken into store, it is so well taken care of in the store that there would be no damage there.

834. The contract provides that the meat shall keep good for five years, and in order to recover the penalty for any condemnation under the contract it must be done within five years. Now we have it in evidence that a great deal of the meat is found to be bad very shortly after it has been issued to the ships; therefore I ask you, whether you do not think that a contract which should compel the contractor to deliver, from time to time, as it was required, a certain amount to each ship, would not be a better mode than these long subsisting contracts?—Yes, I think that might be an improvement.

835. The evidence which has been given has been to the effect, that at the time of the delivery of the meat, and for two or three months afterwards, it has invariably been good; but after that period it has frequently been found not to be good when it has been opened. Captain Milne was asked, in Question 728, "How long had those canisters which were examined and found good, and which were afterwards found so bad, been in store?" The answer is, "They were just delivered from the contractor; they were coming to be delivered in for receipt, and this special survey was in consequence of complaints which we received, and which we could not understand; the yard officers stated that they never saw finer meat come into the yard; on the other hand, we had complaints from foreign stations, and condemnations of the meat as being rotten; yet the yard officers, who were men of integrity, had assured us that the meat was good and wholesome." Therefore, at that time, there was no appearance of its being unfit for use, but when it was delivered to the ships for use it was found not to be good?—I do not understand how it should have got bad; I do not think it could have got bad in store.

836. Do you think that a contract to supply ships from day to day, for periods of three months, as the case might be, would be better than a long subsisting contract for five years, for

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for a certain quantity of meat to be put in store in bulk, which may afterwards turn bad?—It would insure the meat being fresher, no doubt.

837. Mr. *Fordyce.*] A complaint was referred to as having been made by Sir James Ross; was it a passing complaint in conversation, or a formal complaint?—It was not a formal complaint; the purser, or some of the officers, stated in the yard, that they found a little more bone in the canisters than they ought to have had; and we had the curiosity to weigh some of the canisters, and we found two or three ounces of small mutton bone in the canisters, which perhaps was more than was intended, but the meat which was returned was perfectly sweet and good.

838. It was not a formal complaint?—Not a formal complaint.

839. Are you aware that damage is often done to the canisters by the mode in which they are packed on board ship?—Unless the canisters are very carefully handled, of course by knocking against each other on board ship they will get damaged and broken; on that account the meat occasionally gets bad, but if the canisters are packed in cases with sawdust, there is no danger of the canisters being broken or damaged; but on board ship, in small ships more particularly, they have not room to stow those cases, and they store them in bulk; they put them between casks, in the hold, anywhere where they can put a small canister.

840. Is not a great deal of injury occasionally done to them in that way?—I think so.

841. Does that happen more with the large canisters or with the small ones?—The larger canisters are more easily broken; the large tins are not stronger than those of the small canisters; and being more weighty, they are more liable to get injured than a very small package, which is lighter.

842. Do you know whether these preserved meats are used extensively in the merchant service?—They have been very extensively used; I should not think any merchant ship goes to sea upon a long voyage without them.

843. Are they used as rations, or only as medical comforts?—Both as rations, and as medical comforts also.

844. Are you aware whether the same parties supply the merchant service who have supplied the Navy?—Goldner, I know, used to supply some ships which I have surveyed when I was a Government surveyor for transport and convict

convict ships; he supplied the captains of those ships; also Gamble, and other people in London.

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845. Do you happen to be aware whether they have given satisfaction?—I have never heard any complaints made of them, but I think Mr. Pearn, the gentleman who succeeded me at Deptford, will be able to give the Committee more information upon that subject; he commanded a troop ship, and had the use of those preserved meats for years on board ships.

846. *Chairman.*] Was pemmican manufactured in the Deptford Yard at that time?—Yes, I manufactured pemmican myself, I think, for Sir John Franklin's expedition, and also for Sir James Ross's.

847. How was the meat procured from which that was manufactured?—We procured the meat in Leadenhall Market.

848. It was not slaughtered in the yard?—No; it was sent down in quarters; it was all made from hind quarters; the best part of the meat.

849. Does that keep a great number of years?—I had a specimen of it in my office, I think, for seven or eight years. I ran some fat over the top of it, and it appeared to me to be as good as the day it was first made. I made a small canister of about a quarter of a pound. I took great pains in making the pemmican, and I think I succeeded very well in doing it.

850. It was an expensive operation as compared with these preserved meats?—Very expensive.

851. What did it cost per pound?—I think a hundred weight of meat did not yield more than 15 or 20 pounds of pemmican; it had to be all cut up in steaks, all the fat taken out, and then put in a warm loft, and dried almost to a chip; and then we ground it with mill stones; when warm we mixed a little of the beef fat with it, and ran it together into the canisters. I think it must have lost at least about 60 per cent.; it is a very expensive operation.

852. Are you aware what quantity of waste there is in the preservation of this meat; how much it wastes in the process of manufacture, or curing?—I am not aware.

853. Do you know the price at which the contracts were made, in the latter part of your time, at Deptford?—I think the contract was about 4½*d.* to 5*d.* a pound for large canisters.

854. You are not sufficiently acquainted with the operation of preserving it to know to what extent the meat was wasted

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wasted in the operation?—No, I could not speak to that point.

855. Is the operation itself an expensive one?—No, I do not think it is an expensive one. I think myself that the Government might cure it just as cheaply as the contractors.

856. Did you ever calculate what the cost of curing it would be, for the actual operation of the curing?—No; that is a calculation which I never went into; but I have no doubt that the Government could cure it as cheaply as the contractors, and that you could ensure an article that would be what it ought to be for the use of the service.

857. The Committee are informed that the very prime parts of the animal are seldom put in by the contractor into these preserved meats?—I should think the best parts of the animal are put in.

858. Captain Milne's opinion was, that it is impossible to secure the best parts of the animal being put into those meats that are preserved in England; do you not agree with that opinion?—I dare say, as far as England is concerned, where meat is so valuable, they would put in a great many of the inferior parts; but on the Continent, where meat is of comparatively little value, there would be no inducement to put in the inferior parts. The only objection that I should see to curing meat abroad is, that you cannot tell whether the animal is in a healthy or unhealthy state when it is killed; because we know that they often kill animals, in Russia particularly, for the sake of the tallow, and perhaps the animal may not be in the good condition in which meat ought to be which is killed for food.

859. You think that there is some risk by taking a contract at a great distance from home?—I think so.

860. And that an efficient inspection, such as you think would be a necessary and useful precaution, could not well be exercised abroad?—Not abroad.

861. Sir *F. Baring.*] In the course of your duties have you inspected the salt meat?—Yes.

862. How long were you in the Deptford Yard?—Seventeen years.

863. What is your opinion of the salt provisions. Are they worse than they were or better?—I think I should say that from about 1848 and 1849 I do not think the Irish provisions were so good as they used to be.

864. Do you speak of Irish pork and Irish beef?—Of Irish beef and Irish pork both; but I think that it was the case with the pork more than with the beef.

865. To

865. To what do you attribute that?—To the bad feeding and the scarcity of food.

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866. Since the famine you think it has fallen off?—I have no doubt of it.

867. Have you had any opportunity of seeing the foreign provisions?—I have seen the Dantzic and the Hamburgh meat. I think that is splendid meat.

868. Are you speaking of pork or beef?—Of pork and beef too.

869. Do you consider it as good or better than the Irish provisions at present?—When I was in Deptford Yard I have no hesitation in saying, that the Dantzic and Hamburgh meat was superior to the Irish meat which we were receiving at the time.

870. Both beef and pork?—Both.

871. Were they superior or equal to the old Irish provisions?—When I first entered the yard they were about the same kind. In 1840, and from that to 1843 or 1844, we had had very superior meat; but latterly the Irish meat has certainly fallen off in point of quality and in point of appearance.

872. Comparing the Hamburgh and Dantzic meat with the provisions which you had from Ireland in 1843, how do they stand?—I think the Hamburgh and Dantzic meat was about equal to what we used to call the prime Irish meat.

873. With regard to American pork, what do you say of that?—I do not think the American pork is good. It looks well, but it boils away; it is owing to the nature of the feeding; it has a good appearance, but there is an oily substance about it, arising from its being fed upon acorns, I presume, and when it is put in to be boiled it boils away very much, and gets flabby and soft. The American beef is very good, but the pork is not good.

874. Can you tell us whether the sailor likes the foreign meat or the Irish meat best?—I do not think he can tell the difference. In all the ships that I have inspected, taken up by the Govenment for carrying detachments of troops, I observed that they generally had foreign pork, which I always considered very unexceptionable, meat of excellent quality, and well cured, and quite equal to any Navy meat; indeed that was the instruction, that the provisions carried for the troops, when the ships victualled themselves, should be equal to Navy meat.

875. You reside at Bristol now?—Yes.

876. Do you know what the Bristol mercantile ships use?—They

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—They generally use foreign meat; they get a large quantity of it down from London occasionally. They get it cheaper than Irish meat, and that is, perhaps, one reason why they use it.

877. Do you think that upon the whole, the sailor is worse provisioned now than he was when you first went into the yard at Deptford?—I consider that the provisions of the Navy now are far superior to what they used to be in every respect; the bread is better, the chocolate is better, and the flour is better; I do not think that more pains could have been taken for victualling the Navy than have been since I have been civil officer. It is not for a moment to be compared with what it used to be in the time of the war.

878. *Chairman.*] In your opinion great benefit has been derived from the Government preparing their own bread in the Government yards?—I have not a doubt it, because the bread is pure; you get your own wheat, you grind your own flour, you bake your own bread, everything is pure; I am satisfied that if the Government would adopt the plan of preserving all its meat, it would have no complaints of this kind.

879. Mr. *Yorke.*] Do you think it would be a more economical arrangement; condemnations would be fewer, and the loss less?—I do not see why if a private individual can make a profit in manufacturing the article, the Government should not do the same thing.

880. Do you know what sum would be required for constructing houses and conveniences in the different dockyards for such a purpose?—I think the principal thing would be to get a small steam-engine, I should think that perhaps 3,000 *l.* in each of the victualling establishments might do it.

881. You think that 300 *l.* for each yard would be too little?—Yes, certainly. At Goldner's place I observed four or five years ago, when I was there, that he had a large room; he had not much apparatus, because the great thing is to have proper troughs to boil the meat in, and steam to heat them to a certain extent. The mere fitting up of the place would be a mere trifle compared with the utility of the thing.

882. Sir *F. Baring.*] You have already at Deptford slaughter-houses and everything of that sort which would be necessary?—Yes. The slaughter-houses are very extensive; they have the means of killing 500 bullocks in one slaughter-house and 1,000 pigs in another. With those two slaughter-houses they have every convenience for an establishment of that kind.

883. Admiral

883. Admiral *Stewart.*] Consequently the outlay that would be required there would not be large?—No. All that they would require would be steam-engines and hot reservoirs for boiling the meat in, and probably half a dozen men to make the canisters. It could be carried on at a very small expense. You do not require any great establishment to manufacture preserved meat.

884. *Chairman.*] And you think that persons might be found having science sufficient?—I have no doubt of it; in fact there is no science in it; in my opinion any person who can hermetically seal a thing at the nick of time could do it very well; I am sure it might be done.

885. Admiral *Stewart.*] Do you think that it would be preferable to have the meat prepared, and the whole process carried out by a Government establishment, or are you of opinion that the inspection of a Government officer in the contractor's manufactory would be a sufficient guarantee for a satisfactory supply?—I would prefer doing it at a Government establishment, the same as every thing else is done; I think you have officers that would always see the thing properly done; next to that I should strongly recommend having a respectable man to inspect every contractor who is preserving meat for the Navy; a man that you could depend upon to see that the thing is properly done.

886. Would it not be manifestly impossible for a single inspecting officer to see every canister?—The great thing would be to see the quality of the meat, and to see that the meat is perfectly fresh; I think a great deal depends upon the meat being in a perfectly sweet and fresh state when it is first put into the canisters; if the meat is at all tainted, I doubt whether it will keep well.

887. But could any inspecting officer see the meat put into all the canisters in a large manufactory, in order to make certain that no improper substances were put into them?—I do not know; there ought to be a certain time for cutting the meat up, and a certain place to cut it up in, and then let it be taken into another room when it is prepared; I do not know that one man could do it, because it would require constant daily attendance.

888. Supposing any of the workmen chose to play a trick, how could he guard against that?—If they chose to play any tricks with the meat there is no doubt they might do it.

889. The inspecting officer would not be certain of detecting it?—No, but there would be vigilance exercised.

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890. Mr. *Yorke.*] Do you think that anything depends upon killing the meat, and putting it up in a proper cold state?—I should say that if the meat is killed and put up in a warm state, it is not at all likely to keep so well.

891. We have it in evidence that 200 beasts were killed at one time, by Mr. Goldner, at Galatz; supposing that those were all put into the canisters in a hurry, to supply the contract at once, before the meat was properly cold, do you think that that would be likely to remain good?—I think that probably it might not keep as well as if it were properly cold in the first instance; it ought to hang up a certain time before it is used.

892. You think that that might have been one cause of those canisters being found in a bad state?—It is possible that might have taken place; I do not think, myself, that meat should be cooked immediately it is slaughtered, in a warm state.

893. You think that if this manufacture were carried on by the Government it would be easy to secure that all the good parts should be taken, and preserved, and that all improper substances should be completely excluded?—Certainly. I think it could easily be kept free from anything improper.

894. You think that such a system would be a good one for the Government to adopt; assuming this mode of preserving meats, if carried out in a better manner, and with greater vigilance, to be a good mode of victualling the Navy?—I think so.

895. Lord *C. Hamilton.*] After what you have said of the insufficient way in which this preserved meat is stowed in vessels, do not you think it is desirable that there should be some stringent regulations as to the way in which it should be stowed, especially in small vessels?—Certainly there ought to be a certain place for it, but in small vessels they throw it about anywhere.

896. And in that way the best meat may be destroyed, and rendered useless?—No doubt, if the canister is the least broken, the meat will, as a matter of course, get bad.

897. Could you see your way to laying down regulations to avoid that?—Yes; there ought to be a place for preserved meat, just as there is for slops, or rum, or anything else; it is an article for which there ought to be a place where no damage could arise to it by the ship knocking about.

898. Mr. *Fordyce.*] Has that circumstance ever attracted the notice of the Admiralty?—I am not aware that it has.

I have

I have no doubt the Admiralty must know something about it, but it is not in my province to have anything to do with it on board a ship; after it left our yard we had nothing more to do with it.

899. Do you consider the manufactory at Deptford of bread and cocoa and flour to be very successful?—Very much so.

900. Have there been many instances of complaints about those articles since those manufactories have been in opetion?—I think not.

901. You think the best way of preventing a recurrence of these accidents with respect to preserved meats would be by establishing some manufactory of the same kind in the victualling yards?—I have not a doubt of it; I am sure it would answer, and I am also persuaded that less complaints would be made.

902. You do not think it would occasion any very great expense?—I think not; there would be no great expense in fitting up a place of the kind. At Deptford and Portsmouth and Plymouth they have got space and accommodation; all they want is to put up a small steam apparatus and some plates.

903. Admiral *Stewart.*] In speaking of small vessels, in which the meat is not carefully packed, do you mean small vessels in Her Majesty's Navy or merchant vessels employed as transports?—I mean small ships of war, not merchant vessels.

904. You stated that almost all our merchant ships take preserved meat to sea now, and that there are no complaints made respecting it; do you attribute that to the meat furnished to the merchant ships being better than what has been supplied by the contractors to the Navy, or do you attribute it to the fact of the merchant ships only provisioning themselves for a specific and limited time?—With respect to complaints of preserved meats on board merchant ships, I am not in a position to say whether they have been more or less frequent than in the Navy; the only thing I would observe is, that merchant ships going to India will take in as much probably as will last eight months; by the time the voyage is out the whole of the preserved meat is consumed, and consequently they get it for every voyage fresh, or as fresh as it can be made; but I have never heard any complaints made on board merchant ships that I have been surveying as to the bad quality of the meat; and I believe it is generally allowed that a meal of preserved meat once a week is a very good thing.

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905. Lord *C. Hamilton.*] Do you happen to know by whom the mercantile marine are supplied with these meats?

By all the contractors in London.

—906. The same as the Navy?—The same as the Navy; they have all their different men of business, of course; they get them from different people.

Edward John Phillipps Pearn, Esq., called in; and Examined.

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907. *Chairman.*] WHAT office do you fill?—Master-attendant at the Deptford Victualling Yard and Dockyard.

908. Did you succeed the gentleman who has just been under examination, Captain Morice?—Yes.

909. When was that?—I was appointed in April 1850; I did not commence my duties till about the middle of May.

910. How long had you previously been in the yard, or in Government employment?—I commanded a troop ship at the time I was appointed to the yard, and had been in the Navy about 35 years.

911. It was only a year or two before you entered upon your present situation that the preserved meats were adopted as a general issue for sea-going vessels in the Navy?—Yes, about 1847, I should think.

912. And up to the commencement of this year they continued to be supplied upon all the various stations on which the ships were employed?—Yes.

913. To what extent was it usual to victual ships with these preserved meats?—I believe, when first it came out, it was only every third salt-beef day; it was afterwards altered to every alternate salt-beef day.

914. Did that amount to two days a week?—Yes; in some weeks it would amount to two days a week, in others not so much. Out of six days there would be one day of preserved meats in the first instance, and afterwards the alternate salt-beef days were preserved meat days.

915. How often would that amount to?—In eight days they would have four days pork, two days salt beef, and two days preserved meats.

916. When a ship was victualled for a twelvemonth, what quantity of preserved meat was furnished to the ship for issue to the men during those twelve months?—It would be in proportion to the crew.

917. For 100 men?—I cannot tell the number of pounds there

there would be; but it would be in the proportion of two days out of eight.

918. Have very large contracts been supplied to Deptford Yard from Mr. Goldner since you have occupied your present situation?—Not a great deal from Mr. Goldner; there were some small receipts from Mr. Goldner previous to his contract being stopped.

919. That contract was stopped about the middle of the summer of last year?—About April or May last year.

920. Was that upon the delivery under his contract which had been entered into in the beginning of 1851?—The contract was entered into in 1850, and continued in October.

921. Then a new contract was made in 1851?—Yes, and that last contract must have been stopped about May 1851.

922. Were you present at the survey of these meats when they were received into the yard under the contract of 1851, which occasioned the stoppage of the contract?—Yes; I was present at a large rejection of 22,000 lbs. or 23,000 lbs. That was in March 1851.

923. Was that under the contract of 1851?—I think it must have been under the contract of 1851. I am not certain about the date of the contract.

924. But this took place in March 1851?—It did.

925. What was the nature of the inspection which was then made of those meats?—We opened canisters. There was no particular order as to the number of canisters to be opened.

926. That was discretional with you at the Government yard?—Yes.

927. The survey which you are describing now was not any special survey that was ordered, but it was the survey that ordinarily took place upon the receipts?—Yes.

928. In what way did you proceed to inspect those meats?—By opening canisters.

929. To what amount?—We had no particular amount; but after opening some canisters we found tongue in them, and then stopped; and we asked the question, Whether it was to be considered as offal, and whether it was to form a sufficient cause of rejection?

930. Besides finding this improper substance in the shape of tongue, which you supposed to constitute offal, in other respects did those meats appear to be deficient?—They were generally good; the only objection that we had to them, on that occasion, was the tongue.

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931. There was no other cause of objection at that time?—I do not remember any other.

932. Upon that being reported to the Admiralty was the whole contract stopped?—The contract was stopped a short time afterwards, and we supposed, on that ground.

933. No more, under that contract, was afterwards received?—There might have been some small delivery after that, between that time and the stopping of the contract.

934. It appears that there had been, previously to that, several rejections of Goldner's meat upon survey, for improper substances which had been found in the canisters?—Not at Deptford.

935. None at which you were present?—No.

936. Do you know whether those surveys, in which those complaints originated, took place in the yard, or whether they took place on board ship?—I do not think we had any surveys about complaints in Deptford Yard.

937. At what time was the special survey ordered, in 1851, upon all the meats in store?—There were two special surveys in 1851; one was in May 1851, at which the officers of the "Fisgard" were present.

938. When was the general survey ordered of the whole of Goldner's meats that were in store?—That must have been in the end of the year, about November 1851.

939. In May, you say, the officers of the "Fisgard" frigate were ordered to join in the survey?—Yes.

940. Were you present at that survey?—Yes.

941. To what extent did that survey go; how many canisters were opened?—I do not know what quantity we opened at that time, but I should think about from 40 to 50 canisters.

942. What was the result of that survey?—It was all found good. Mr. Grant, the Comptroller of Victualling, was also present at the survey.

943. Among all the 40 or 50 canisters that were opened, there were no improper substances found?—None whatever.

944. In November a general survey of Goldner's meats was ordered?—Yes.

945. Who were the officers appointed to conduct that survey?—The officers of the yard; myself, the storekeeper, the assistant storekeeper, and the medical storekeeper of the yard.

946. Was it usual for the medical officer of the yard to be ordered to be present on such surveys?—In cases where we thought there was anything improper in the meat, requiring a professional opinion.

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947. To what amount did that survey take place?—There were upwards of 2,400 canisters, more or less in a state of decomposition; some just in an incipient state of decomposition. Some of the canisters were 8 lbs., and some 12 lbs.

948. Were the whole of those found to be more or less in a state of decomposition?—Some of them were in an early stage; all of them were more or less in a decomposed state; some of the meat had just commenced to get soft under the knife; it would give way under pressure.

949. Were some in such a state that it was almost impossible to tell what the substance was?—Some were in a very bad state; quite a pulpy fluid state.

950. In this large examination which took place, what quantity of improper substances did you ascertain to be there?—There were none during the time that I was present.

951. You were not present the whole time?—Not every day.

952. Some of the officers were?—Yes. Having other duties to attend to I could not be present every day.

953. Did you see any improper substances?—No.

954. Were none produced at other times when you were not there?—I have heard that on one occasion something was found. I have seen tongue and kidney, but I have never seen anything decidedly improper; nothing like intestine.

955. But tongue and kidney were specially excluded by the terms of the contract?—"Offal" was the word used in the contract.

956. The words of the contract are, "No canister to contain any bone, offal meat, intestines, vegetables, or any other meat or substances whatever not permitted by the contract"?—We asked the question as soon as we observed the tongue, whether we were to consider tongue as offal, and we were told that it was; and the rejection of March took place in consequence. I never saw any kidney in preserved meats before the survey of November.

957. Did you find this kidney to any great extent?—No, very little. I commanded a ship from the commencement of issuing the preserved meats to the time when I was appointed to the Dockyard at Deptford.

958. Mr. *Gwyn.*] When were the complaints first of all made about these meats?—I do not know at what time there began to be complaints.

959. *Chairman.*] You only know what took place in the yard?—Yes.

960. You say that up to the time of your becoming employed

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ployed in this situation you commanded a ship; what ship was it?—The "Atholl" troop ship.

961. Were these preserved meats in use for the troops and sailors on board that ship?—Yes, from the commencement. That was one of the first ships that was victualled with them.

962. What voyages did you perform with troops on board?—Several to North America and the West Indies, the Cape of Good Hope, the Mauritius, and one voyage to Ceylon.

963. With troops on board?—Yes.

964. And those troops were victualled with these meats?—Yes, in the usual proportion.

965. Were they supplied by the Government contractor, or by private contract?—I received them from the Government yard; I had none but what were supplied by the Government.

966. Yo do not know what contractor supplied them?—No.

967. Was the contractor's name not marked upon the canisters?—No, it was not marked upon the canisters in the first instance.

968. What is your experience of the use of these meats under those circumstances?—That it is a very desirable thing, if you can be certain of their being good at all times.

969. Were they good or were they otherwise?—They were generally good; we had some condemnations, but never but one to any great extent in the "Atholl."

970. When was that?—It must have been about September or October 1849.

971. Was that a condemnation of meat supplied from the Government yard?—Yes.

972. From what yard was it?—I received it from the Cobras, the Government stores at Rio Janeiro.

973. What was the nature of the complaints which led to that survey?—It was found that the meat was putrid; with regard to those that were condemned upon that occasion, the canisters in most cases had been injured.

974. To what extent was that condemnation?—I cannot say exactly the quantity, but I should think a fifth or sixth of the quantity that we received from Cobras turned out bad.

975. Did you ascertain that there were improper substances in it?—No, I have never seen any improper substances beyond kidney and heart, and tongue; I never had a complaint made to me of anything improper being in the canisters.

976. Except such substances as might be considered in the

the trade as offal, as kidney, heart, and tongue?—I never even saw them at the time I commanded that ship.

977. Sir *F. Baring.*] When you commanded that ship you had no complaint of there being improper substances in the meat?—None whatever.

978. *Chairman.*] The complaint originated solely in its being putrid?—Yes.

979. And you attribute that to injuries which had been done to the canisters?—Yes; the air had got to the meat, and occasioned decomposition.

980. Admiral *Stewart.*] Did you get a large quantity at Rio Janeiro?—Not a very large quantity; we generally took as much as we could, to prevent our applying to the magazines abroad; but on that occasion I heard of the disturbance at the Cape, in consequence of which I should not be able to get supplies there, and I therefore took in an extra supply of preserved meats at the Government stores at Rio Janeiro.

981. *Chairman.*] Are you aware how long they had been in store there?—No.

982. Lord *C. Hamilton.*] With respect to improper substances, Captain Milne, in Answer 623 says, "But the condemnations for what are called improper and filthy substances, I believe, amount altogether to not above 80 canisters, or 750 lbs. in the whole issues," and he goes on to say, "they complain that some of the canisters contained intestine with decomposed matter, such as hay." In your official experience, since you have been at Deptford, nothing of that kind has come under your own notice?—No.

983. You have not heard of complaints of such being found by others?—Yes, I heard in one instance of some undigested food being found.

984. *Chairman.*] That was in Deptford Yard?—Yes.

985. Sir *F. Baring.*] You said that 2,400 canisters had been condemned; were those canisters returned from ships, or were they stores which had been received and which had not been issued?—I believe they were principally returned from ships.

986. Can you tell at all the date of the contract under which those 2,400 canisters had been delivered?—No; nor can I tell what ships they came from.

987. Lord *C. Hamilton.*] From your experience, should you imagine that this failure of the meat is attributable to the improper treatment of the canisters on board ship, or to the rough usage they receive either in being shipped or landed, or in being moved from place to place?—No; the canisters

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canisters become very much collapsed from the atmospheric pressure; they crumble up, almost like a sheet of paper, into sharp angles; from friction and other causes the angles very soon wear through. We have often had to send back large quantities of canisters from their being so much indented by atmospheric pressure when they are delivered into store. On board the "Atholl," before we had had so much experience, we were apt to consider that those canisters which were indented in this way arose from ill-usage, but having attended the opening of a considerable quantity of casks, where they were packed in sawdust, I became satisfied that it was not from ill-usage, but from the pressure of the atmosphere, there being a vacuum inside there was nothing to resist it; we generally found those canisters that were so indented, if they were not worn through, to contain the best meat; that is, in the best state of preservation.

988. Mr. *Fordyce.*] How many years were you in command of the "Atholl"?—Four years and nine months.

989. Had you commanded a troop ship previously to the "Atholl"?—No.

990. You occasionally carry troops?—In the "Atholl" constantly.

991. What number did you carry?—I think the largest number I ever had on board was about 315 men; I had small numbers, down to 60 or 70, mostly reliefs of the Artillery and Sappers.

992. Were you supplied with provisions from the Naval Stores?—Always.

993. Amongst those were preserved meats?—Yes.

994. In what way did you receive them; were they stowed in casks?—Stowed in casks, and the canisters packed in sawdust.

995. How did you stow them on board?—They were taken out of the casks, and stowed in the slop-room; the slop-room was much larger than was required for a troop-ship; I used to stow them there, that they might be better preserved.

996. You took special care in stowing them to preserve the canisters?—Yes; we stowed them there for safety.

997. You never stowed them among other casks?—No, never.

998. Then you must have had a very good opportunity of judging of the goodness of the preserved meats as well as other provisions?—Yes.

999. Did you consider them satisfactory upon the whole, and

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and to add to the comfort of the crews?—I think very much so.

1000. Also beneficial to the health of the crews and of the troops?—There is no doubt about it; I always used at my own table the portion that came to my own allowance, and I considered them very good.

1001. And there were very few complaints of them?—I never had any complaint; a canister was brought up; if the air had gone into it the smell was very bad, and it was immediately thrown overboard.

1002. Were those instances numerous?—Not a great many; they chiefly occurred when the meats were sent in the large canisters, but of small canisters we had very few condemnations.

1003. Were they supplied by different manufacturers of preserved meats, or were they supplied by one contractor?—I cannot say; the canisters were not labelled at that time.

1004. Were the other provisions good; the salt beef and pork?—Yes, very good.

1005. Superior to what they used to be?—Yes, certainly; the salt meat is not like the same thing that it was when I entered the service 40 years ago.

1006. Not only the salt beef, but the other kinds of provisions are much improved?—Every thing has improved; even within the last 10 or 15 years there has been a great improvement.

1007. Those preserved meats you used at your own table?—Always.

1008. Admiral *Bowles.*] What different sorts of preserved meats had you?—Only beef for general issue; we had medical comforts, roast mutton and soups.

1009. Will you specify all the different sorts you had on board?—For medical comforts we had roast mutton and soups of different descriptions, concentrated soup, and soup and bouilli; I think that was all; we had not such a variety as we have now.

1010. What have you for general issue?—Beef only; stewed beef.

1011. That only required warming up?—Yes; you might warm it if you please, but it is better eaten as it comes out of the canister.

1012. Cold?—Yes; but you can make it into anything; you could make curry or pies, or puddings of it.

1013. In short you used it as you might any other meat?—Yes; only that, as it was dressed and cooked, we avoided cooking

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cooking it as much as possible, or else it would have been overdone.

1014. *Chairman.*] Is there any manufacture of provisions carried on in Deptford Yard now?—Not in meat; we make our own biscuit and chocolate; we receive the corn and grind it into flour, and make our own biscuit.

1015. You are not manufacturing pemmican there?—No.

1016. At present there are no meat provisions prepared there; are there?—We are salting meat for the Arctic ships.

1017. How is that procured?—That is bought by private agreement.

1018. Is it bought from the butchers?—Yes, particular parts; we only take the rounds and sirloins of the beef, and the belly meat of the pork.

1019. Is that bought in the London market?—That is bought from a butcher in the London market. Mr. Lee we are getting it from.

1020. Does Mr. Lee contract for it?—Yes; it is under a special agreement; we give him 6*d.* a pound, without the bone, for such meat as shall be approved of by the Deptford officers.

1021. Do you contemplate the possibility of preserving meat in the Government yards?—We have talked of it amongst ourselves, but we thought it desirable to ascertain first whether it could be preserved to last for any length of time.

1022. You thought that experiments were necessary as a preliminary step?—Yes.

1023. Do you know anything about the system of preserving the meats yourself?—No, except what I have heard from the different contractors.

1024. Have you ever inspected any of the contractors' factories?—No.

Edward Ede, Esq., called in; and Examined.

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1025. *Chairman.*] YOU are Assistant Storekeeper at the Deptford Yard?—I am.

1026. What is the nature of the stores that are under your care?—All the stores in the yard more or less come under my inspection with the other surveying officers.

1027. Those that refer to the victualling of ships?—Yes, the victualling and transport stores. There are no provisions in

in the transport stores; they come under the head of victualling.

1028. Those provisions consist of the various meat provisions which are supplied to Her Majesty's ships and transports?—Yes.

1029. And among them the preserved meats?—Yes.

1030. They were supplied till latterly in very large quantities to sea-going vessels?—Yes.

1031. From the Deptford Yard, all the other Government yards and the foreign stations are supplied?—With the exception, that in 1850 and 1851, some were received at Plymouth and Portsmouth; they received direct from the contractor a quantity at Plymouth and Portsmouth.

1032. Those received at Plymouth and Portsmouth did not again go to other Government yards?—No, they went on board ships.

1033. But from your yard you supply not only ships but all the depôts?—All the depôts are supplied from our yard.

1034. A great quantity of these preserved meats have been through your hands?—Yes, since 1848 more especially. In 1846 I was appointed assistant storekeeper, and the first two years after my appointment I was not so much upon these surveys as I have been since 1848.

1035. Do you call the inspection which takes place when the meats are received into store a "survey"?—Yes.

1036. What is the nature of the survey which you have usually carried on for those preserved meats upon receiving them into store?—A batch of them has been delivered by the contractor into the stores, generally by carts, and they have been stored before we examined them. A batch of them has been placed in store, and we have taken indiscriminately from each batch a certain number as we thought proper, and opened them.

1037. Latterly, have you opened more than you formerly did in conducting those surveys?—Yes, because latterly there has been found a greater quantity in a bad state than there were formerly.

1038. There has been more doubt about the quality of them?—Yes.

1039. That has made your survey more strict?—I do not know that it is more strict, except that, necessarily, from seeing that the meat was not so good as formerly, we examined it to see whether we could find out anything bad, because formerly we never found anything that was bad.

1040. Have you been present at all the surveys that have taken

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taken place in your yard?—No; I have been present at most of the rejections; I believe there has been scarcely a rejection without my being present.

1041. You were present at the survey which took place in May 1851, when the officers of the "Fisgard" were associated with you in the survey?—Yes.

1042. Do you recollect how many canisters were opened upon that occasion?—I do not know, but I should suppose there might have been 30 or more, because we did not keep a record. We opened as many as the officers of the "Fisgard" thought sufficient to justify them in pronouncing an opinion.

1043. What was the report?—The surveyors were the officers of the yard, the medical storekeeper, and three officers from the "Fisgard," and the comptroller of victualling was present, but not as a surveying officer; he did not sign the report. The contents of the canisters opened were very good in quality; no improper parts of the animal were found; they were properly cooked, and in a good state of preservation; in many canisters parts of the buttock were of a fine mottled appearance, the interstices of the fibre filled with firm fat. That was the gist of the report.

1044. From other circumstances which had occurred elsewhere, in other yards, and reports that had been made, was not a general survey of the whole of Goldner's meat ordered to take place in November last?—Yes.

1045. Were you present at that survey?—I was; those were returns of Goldner's meats; we had none of Goldner's newly delivered meat in the stores at the time; they were returns from several ships and from other places abroad, whence they had been ordered to be sent home. We had accumulated a lot of returns, which we were ordered to survey; that was a special survey; we had a medical officer present (the medical storekeeper of the yard), who is not one of the surveying officers generally; he is never employed on surveys, except that latterly we have asked for his assistance merely for our own satisfaction, because there were technical points which we could not always decide.

1046. Upon that survey 2,400 canisters were condemned?—Yes.

1047. All those had been on board ship?—Yes.

1048. And had been returned again into store?—Yes.

1049. Were you present at the whole of that examination?—With a very little exception. I must have been relieved a little now and then, but I was upon it throughout the survey

survey more than any other officer, except the medical storekeeper.

1050. More than Mr. Pearn?—Yes. Mr. Pearn was away on other duties.

1051. Mr. Pearn has told the Committee that all the improper substances which he saw were those which might have been described under the term "offal," consisting of some tongue, some heart, and some kidney?—That was all.

1052. But he stated there were others in the yard who had, on one or two occasions, seen other improper substances?—I never saw any up to that time; I never saw kidney before; I never saw heart before; I might have seen one tongue, but not more than that, before; because in a rejection that took place on the 20th of March 1851, a few canisters in a delivery, we discovered had tongue; and I then suggested to my fellow receiving officer that it should be submitted, whether that was offal or not. I knew that in the trade tongue was called "offal" because, when at Plymouth, under the contract, the contractor was to have the "offal," except the tongue, which the Government took without paying for it. I knew that in the trade, technically, tongue was "offal," and therefore I suggested that it should be referred to the Board for decision, whether we should take it or not. I suppose we opened eight or 10 canisters, and found, perhaps, two or three with tongue in them; which was a proportion we did not like.

1053. But other parts which might be considered "offal," such as kidney and heart, you never saw till the survey in November 1851?—Never.

1054. Were very small quantities found upon that occasion?—Only a few canisters, the exact number I do not know; but it is in the return, because in each canister where there was anything wrong, we put it down, whatever it was.

1055. Sir *F. Baring*.] Did you see anything that you would object to eat if you were hungry?—Certainly not; indeed I should have preferred it if I had been asked whether I would have a canister with the tongue, or a canister without the tongue; if I had been kept a long while on salt and preserved meat, I should have asked for the canister with tongue in it; it was mere matter of opinion as to whether it should be rejected or not, because I considered it was only technically called "offal," not really so.

1056. *Chairman*.] But that would not apply to heart?—No; but at the same time, I do not know with regard to heart, whether I should not for a change have preferred it.

1057. Lord

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1057. Lord *C. Hamilton.*] Was not it sufficiently laid down in the terms of the contract; was it necessary to submit the question to the Admiralty to decide whether tongue should be admitted or not;—No, the term in the contract was "offal;" the object was to settle the doubt, whether tongue was really "offal" or not.

1058. Mr. *Yorke.*] But all the contracts contain the term "offal meat"?—Yes.

1059. *Chairman.*] What was done with this condemned meat, these 2,400 canisters, upon the special survey?—We buried it.

1060. Was that after consultation with the Admiralty; and were you informed that they thought that that was the best course to pursue with it?—No, it was the superintendent of the yard, the Honourable Captain Dundas; we submitted to him what should be done with it, and there being a large tongue of land outside the building belonging to the Government, and apart from any domestic habitation, and there deep holes were dug for it, and it was buried with quick lime.

1061. What number of canisters were found to be good upon that occasion?—326.

1062. Out of about 2,700?—2,726.

1063. How did you ascertain that all that supply was from Goldner's contract?—They had his name on the label; all Goldner's had the paper label that he originally sent out; it is only subsequently that we have had a lacquered tin label.

1064. But Mr. Pearn said that he was not able on board the ship which he commanded, before he was master attendant at the victualling department, to ascertain under what contract the meat had been supplied; was that in consequence of the paper labels being rubbed off?—Most likely; but we never could make a mistake as to Mr. Goldner's canisters.

1065. Then out of those 2,726 of Mr. Goldner's, the 2,400 were condemned and buried, and 326 were found serviceable?—Not only serviceable, but very good, because many of those which were buried would have been deemed good food; but the medical man thought it was better not to send any out but what were not only good but exceedingly good.

1066. What was done with what was good?—It was distributed amongst the poor of the parish, under the superintendence of the two incumbents of the parishes of Deptford.

1067. Could it not have been made use of for victualling the

the Navy?—It was beautiful, but we could not put it into the canisters again and send it to a distance.

1068. Were there no ships near that could have used it?—No; and when preserved meat is once opened it spoils sooner than fresh meat.

1069. There were no ships in the Thames, or immediately at hand, for which it was required?—No.

1070. Lord *C. Hamilton.*] Was that which was condemned, and that which you found good, all from the same delivery?—No; we cannot tell what delivery they belonged to, because they were returned from different ships.

1071. You say they all had labels on; did not the labels give the dates?—No.

1072. Mr. *Yorke.*] Taking into consideration the condemnations and the waste, and everything else, do you think this is a wise and economical mode of victualling the Navy?—That is a question I do not know how to decide; it would require consideration as to the prices at which you can get salt meat, and at which you can get this.

1073. Is that a subject to which you have attended?—No; ours is the duty of survey; we do not go into that part of the business. We must go into the whole subject of victualling to decide that; in short, we do not even require to know the prices at all; we have not to look at the prices; our duty is merely to look at the quality of the goods. The prices have been already settled.

1074. *Chairman.*] Your province is to see that what is supplied is correct?—Yes.

1075. Mr. *Yorke.*] In what proportion do the salt meats which have been used for so many years in victualling the Navy keep good, as compared with these preserved meats which are of later introduction?—I should think there is very little difference. There has been a great deal of salt meat condemned; and a great deal we have condemned at Deptford after having been out, and that has been sold at public sale.

1076. You sell it to the public after it is condemned in the yard?—As long as it is not stinking.

1077. Why do you condemn it?—Because it is not fit for the Navy; it boils away too much, or it is too hard, or it is discoloured, or it may be a little sour, but still it would be wrong to throw it away.

1078. That you sell?—Yes.

1079. Therefore, that is not utterly lost to the public?—No.

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1080. But in the case of the condemnation and burial of preserved meats it is utterly lost?—Yes.

1081. Some of the preserved meat you threw overboard at Spithead; there is no return there as there is in the case of the salt meat; is not that a circumstance in favour of the salt meat?—It is difficult to make the comparison, unless we could ascertain exactly what has been condemned and thrown away abroad of the salt meat. The preserved meats come back in canisters; but if a cask of salt meat is opened, they go into an inspection of the whole, and then they condemn it, and throw it away; it does not come back to England; but every canister of preserved meat not opened would come back.

1082. In fact, there is a loss on both articles, and it is difficult to ascertain the amount of it?—Yes. I should think there is very little difference, but I cannot speak so positively as they could at Somerset House, where they have the returns of these facts.

1083. Sir *F. Baring*.] Can you tell the Committee whether, in the cases where condemnations of preserved meats have taken place, the loss falls upon the Government, or upon the contractor?—Upon the contractor, where it is within five years.

1084. Consequently, in making the calculation, it would be an error to put it down as loss to the Government?—Clearly so. I understood the question put to me just now to have reference to the quantity of each of those things condemned, but with regard to the loss to the Crown, I should state, that the whole of the salt meat which is condemned would be a total loss if it was more than a twelvemonth old. The preserved meat condemned is not a loss to the Crown unless it is five years' old.

1085. *Chairman*,] Salt meat only being contracted to keep twelvemonths?—Yes. Down to 1851, we had orders to receive preserved meats at different times from the contractors, and to that time all the reports and condemnations which had occurred had taken place abroad, and to the 29th of January 1851, from the 20th of July 1848, I find that the whole quantity of condemnations did not exceed 5,211 lbs., amounting only to about 65 tierces of pork. All that preserved meat was replaced by the contractor, and we had to receive it. I thought it a point of interest to ascertain the quantity of preserved meat which had been condemned abroad to January 1851, and therefore extracted from our books a memorandum upon the subject.

1086. At

1086. At what stations abroad did those condemnations chiefly take place?—The first two were, one of 90 lbs., another of 58 lbs., at the Mauritius. The next was on board Her Majesty's ship "Comus," 216 lbs.; the next four were again from the Mauritius, 149 lbs., 77 lbs., 24 lbs. and 80 lbs. Those were in 1849. In 1850, there were at Jamaica 802 lbs.; sundry ships, 3,406 lbs. Her Majesty's ship "Niger," in January 1851, 309 lbs. Now that extended over a period of two years and a half.

1087. Does that comprise the whole of the condemnations that took place in the Navy?—Yes, there had been none in England up to that time.

1088. Mr. *Gwyn.*] Are those preserved meats?—Yes; equal to 65 tierces of pork.

1089. Sir *F. Baring.*] Do you know how many tierces of pork were condemned during that time?—I cannot say; but I should not imagine there were many tierces of pork or beef condemned during that time.

1090. Lord *C. Hamilton.*] You mean to say, that those labels had no dates, and that you are not able to state to what deliveries these meats belonged?—No, I am not.

1091. Inasmuch as the deliveries began in 1844, may it not be that more than four years elapsed?—I could not answer that.

1092. It is open to a possibility?—Yes; it is open to a possibility, although it is not probable; because if the returns of the ships were looked to, I dare say it would be seen that the meat was not delivered so far back as that.

1093. Did I understand you to say, that you knew the canisters even though the labels were rubbed off?—Yes; because we had no other large canisters. Mr. Goldner was the first who introduced those large canisters.

1094. You cannot say whether that was his own proposition or whether it was dictated to him?—I cannot.

1095. Mr. *Yorke.*] We have it in evidence that the first time they put those marks on the canisters by which they could be recognized was in 1850?—Yes, then they put the dates on the label.

1096. Mr. *Gwyn.*] Do you remember in what state those canisters were, whether they had been knocked about and broken at all?—Some were knocked about a good deal, and some were not. Those that emitted a fetor had been perforated by the knocking about; those that were not perforated emitted no fetor at all, generally.

1097. The meats in the broken canisters were in a worse

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state than the others?—They were not in a worse state unless there were perforations in the canisters, because the decomposition went on in the best canisters as freely, nay, I think, where there was no perforation, it appeared to us to go on more freely than in the others.

1098. *Chairman.*] None of those meats that were then surveyed formed any part of those meats which Mr. Goldner has sent in, in exchange for those that were condemned abroad?—No.

1099. They were all in ships or stores abroad, and were returned to Deptford?—Yes.

1100. Mr. *Yorke.*] In consequence of what has transpired, has anything occurred to you by which the inconvenience, the condemnation and waste of these meats, could be remedied in any way; that is, by which the meats could be better preserved, or the contracts could be made on better terms?—I do not think there is any mode; the only mode that occurs to me is to do it under Government inspectors on Government premises; all the care that can be taken appears to be taken now, and unless it is done under one's own eyes, I do not think a more rigid investigation could be made than is now made.

1101. Do you think an alteration could be made in the terms of the contracts with regard to the time of delivery?—No.

1102. Or the time over which they should run?—No.

1103. *Chairman.*] You know the terms of the contract which specifies that the contractor should give notice of the periods when he intends to preserve the beef, and that the inspector has a right to go into the factory to ascertain that the process is conducted in every respect in accordance with the conditions of the contract?—Yes; but I should not advise that being done always, for in doing that you take off the responsibility from the contractor; it is very well to provide for that, because if you heard of anything wrong going on, the inspector might come to the premises of the contractor and detect it at once, but if that was done always, you would take the responsibility off the contractor, or rather you would divide the responsibility, which would be worse still; because the contractor would say, "The Government officer was there," and the Government officer would say, "I was there it is true, but your men might have slipped in improper substances behind my back; or when I was not observing, something wrong might have been done."

1104. As long as the system of Government contracts is carried

carried on, you do not see any more efficient mode than is at present adopted of insuring that the meat contracted for shall be perfectly sound?—I do not see anything further can be done than is now done. You have a contract and a rigid inspection, and a penalty for the non-fulfilment of the terms of the contract; and it appears to me that that is as much as you can do with a view to insure the best meat being provided.

1105. Have you considered whether, by manufacturing or preserving the meat in the Government yards, a better description of article might be supplied to the navy?—I do not not think we should obtain a better article than we have been in the habit of receiving.

1106. You think that in the meats which have been supplied by the contractors, you have received as much of the best parts of the animal as would be the case if the animal were slaughtered and the meat preserved in the Government yards?—That has not been the case with the English manufacturers.

1107. Speaking generally of the manufacturers of the United Kingdom?—We could not get better meat than we have had from Scotland, but we certainly could get better meat than we have obtained from London manufacturers.

1108. You think that the parts of the animal furnished by the Scotch manufacturers are better than those which you have obtained from the English manufacturers?—Yes; the first rejection that was made in our yard was upon a delivery of English meat.

1109. Do you think the preservation of meat might, without much difficulty, be carried on in the Government yards?—Yes, it might be without much difficulty.

1110. And at Deptford particularly there are facilities for it?—Yes; there is a large slaughter-house and offices connected with the slaughter-house, which would enable it to be done effectually.

1111. And at a small cost?—I consider the Government always produce their articles in the victualling yards at a smaller cost in the manufacturing than by contract; for instance, in the article of bread, and those kind of things, the cost of manufacturing is less.

1112. You say the first rejection that took place was of an English contract, what were the grounds of that rejection?—I have a memorandum of it here; it was on the 19th of September 1850; we had a delivery of 364 canisters and 229 canisters; the 364 were rejected in consequence of being short in weight, and inferior in quality to that stipulated

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lated by the contract; the 229 were simply short in weight, but the other was inferior in quality, and that created the first suspicion in our minds of preserved meats; until that period, we never met with anything which gave us any doubt at all of the quality of the meats.

1113. And yet the system had been carried on for a great many years?—Yes, it had.

1114. In fact it had been carried on almost to the present extent since the year 1844?—Yes, since 1847.

1115. In the experience of four years you had never entertained a doubt of the quality of the meat till September 1850?—No; but on opening these canisters, we found that the quality was inferior to that which was contracted for; of course the contractors differed from us.

1116. Mr. *Yorke*.] Goldner's establishment was in England in 1850?—He had one establishment in England.

1117. That was superintended by a man of the name of Ritchie?—Yes.

1118. Have you reason to believe that before he went to Galatz in 1850, the meat which he supplied was bad?—No.

1119. Your first knowledge of any bad meat was in 1850; can you give any reason why the same system having been acted upon since 1846, you had no knowledge for four years of any improper substance being put into the meat?—No; we never found anything of the kind till March 1851.

1120. We have been informed that in 1850, for the first time, the contract with Goldner was carried out at Galatz, and I therefore ask you the question whether before that time Goldner's manufactory was not altogether in this country?—I do not know.

1121. After he went to Galatz, were the contracts that he entered into more imperfectly performed than they were when he was in England?—Those meats that came under my inspection up to the rejection of this meat which I have been mentioning were unexceptionable in every respect; but when we opened these canisters of Mr. Powell's, we at once discovered that it was inferior meat, and that of course excited our suspicion.

1122. What contract are you alluding to, because we have heard that in consequence of the supply under the contract of 1850 being so bad, Goldner's contract was repudiated in 1851, and the rejection of the meats supplied under the contract of 1850 was known to the authorities in 1851?—Those meats of Mr. Goldner which passed through our hands

hands up to the time that I am now speaking of, were unexceptionable in quality and appearance.

1123. Under what contract was that?—I cannot state that.

1124. We have had it in evidence that the meat of superior quality was very good?—I only know that the meat which we received from Galatz was as good as any other that we received.

1125. The contract of 1850 was carried into operation at Galatz, and that was the first year in which you heard anything of the imperfection of Goldner's meat?—I cannot tell when we first heard of that; my first suspicion of any imperfection in the meat was raised by Mr. Powell's delivery, of which I have been speaking, for that which I have been now mentioning was not under Mr. Goldner's, but was under Mr. Powell's contract.

1126. I wish to know the first time that you heard any complaint of Mr. Goldner's contract?—I cannot say, except when we held our special survey in May 1851.

1127. You do not know whether Mr. Goldner had fulfilled his contract with the Government in 1848, 1849, and 1850, when he prepared the meat in England?—No, we know nothing of where the meat comes from; as I just now observed, we have only to inspect the meat, and to see that it is agreeable to the contract; if a contract had stipulated that it should be meat of London cure, then we should have known where it came from.

1128. Sir *F. Baring*.] There seems to be some misunderstanding as to the contract of Mr. Goldner, and the time when he performed it at Galatz; do you know when he performed it at Galatz?—No, I do not know when he began.

1129. Do you know that long before 1851, Mr. Goldner had an establishment at Galatz?—Yes; I know that before 1851 he had an establishment there.

1130. Do you happen to know that in 1848, he had an establishment at Galatz?—I cannot speak positively to that; we do not enter into the contracts at Deptford, and therefore we are not acquainted with the parties to the extent that they are where the contracts are made out. If there is a clause in the contract specifying the place where the meat shall be cured, as is the case with the salt meat, then we insist upon a declaration that it was cured at that place, and we see the shipping notes and so on, so that we may be morally convinced that it is so.

1131. Lord *C. Hamilton*.] Were you present at the examination

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mination which took place in September 1850, which ended in the condemnation you have mentioned to us just now? —Yes.

1132. What first led you to discover that it was very inferior meat, did you find any improper substance in it?—There was an order to hold a special survey, and accordingly we held that survey.

1133. And then you found a good many canisters in which the meat was imperfect?—We were told to examine the whole of them. Down to the 29th of January 1851, we had heard of 5,211 lbs. of meat having been condemned; that was the only knowledge we had of any of Goldner's meat turning out badly, and compared with the immense quantities that had been delivered, that was not a quantity to alarm us.

1134. Mr. *Fordyce.*] Does that include all the condemnations on board ship?—Yes. From Somerset House they send orders for us to receive under the contract a certain quantity for a like quantity condemned abroad, and the last order sent to us was on the 29th of January 1851, and to that period 5,211 lbs. only had been condemned abroad, as far as we knew, and that extending over so long a period there was nothing to excite our suspicion that there was anything wrong.

1135. Are tongues supplied to the ships?—To captains, and commanders who have the command of ships; not if they are acting under a captain in the same ship.

1136. Technically, the tongue is considered offal?—Yes.

1137. But practically tongues are supplied as a delicacy to the captains of the ships?—Yes.

1138. That is a kind of paradox?—When it is termed offal it is merely a technical name among the butchers.

1139. You mentioned that you got rid of some of the old stores of salt beef by sale occasionally at home?—Yes.

1140. Do they do so abroad?—I do not know.

1141. You are not aware whether they are allowed to do so?—No. The instructions are, that no provisions shall be thrown overboard unless they are in that state that they are injurious to the health of the men, or are a nuisance.

1142. But in the yards are any sold?—We do not receive any salt provisions, or, at least, very rarely, from the yards abroad; what they do with them I do not know.

1143. *Chairman.*] With reference to this condemnation which took place on the 19th of September 1850, that was an English contract of Mr. Powell, and 364 and 229 canisters were then condemned?—Yes.

1144. The

1144. The 364 were condemned as being short in weight and inferior in quality, and the 229 were condemned as being short in weight only?—Yes.

1145. What was done by Mr. Powell on that condemnation?—He removed them from our yard.

1146. Were they replaced by others by Mr. Powell?—What penalty was inflicted upon him we do not know; we merely report the result of our investigation, and proceedings are taken by the Admiralty.

1147. You do not know what penalty was inflicted upon Mr. Powell for the rejection of this meat?—No.

1148. Mr. *Fordyce.*] Is there any mode of getting rid of the salt meat in the foreign yards, except by issuing it to the navy?—No; a depôt is kept there, and that is constantly replenished from the home yards, and particularly from the Deptford yard; therefore it may remain for a longer or a shorter time in store there, according to the number of ships on the station, or the number that require meat on the station.

1149. Mr. *Gwyn.*] Who supply the salt meat?—Various contractors, some Irish, and some English; till lately, no Englishman ever supplied the salt meat to any extent; it is only within the last few years that Englishmen have supplied the salt meat; the Irishmen generally supplied it.

1150. Mr. *Fordyce.*] In the home yards you occasionally sell the meat?—Yes; all the unserviceable stores we sell, all that are not putrid.

1151. You mean stores that have been condemned?—Yes.

1152. Sir *F. Baring.*] What is your opinion of the relative quality of the foreign and the British cured meat?—I preferred Hamburgh meat up to the examinations of last year; we have not had any this year, but this year certainly, the palm has been carried off by the American meat branded "Abburger."

1153. Are you speaking of pork and beef?—Not of pork; the best pork we receive is certainly the Hamburgh pork, and the Dantzic, especially the Crasemann's and Koopman's brand, Hamburgh; the best Irish meat, and which is the nearest to the quality of the Hamburgh meat, is cured at Limerick, by Oake, or Shaw and Duffield.

1154. Has the Irish meat fallen off since the famine?—We thought in 1846 and 1847, that it was not so fine as it had been before that.

1155. Do you think it has recovered since?—Very much so; it is very good this year, especially the Limerick meat.

1156. Lord

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1156. Lord *C. Hamilton.*] Before the famine, was it equal to the Dantzic meat?—I cannot say, for that would be before 1846, and I was not inspecting officer till 1846.

1157. Sir *F. Baring.*] As regards the general question of provisions that are now issued to the Navy, do you think they have fallen off of late years?—Certainly not.

1158. You think the seaman is as well provisioned now as he was formerly?—He is better provisioned now than he was formerly.

1159. Do you confine that to one particular description of provisions, or do you apply it generally?—I apply it generally; the peas are improved, and the chocolate is improved as compared with that of the old cocoa.

1160. I wish to know generally, without going into particular instances, whether the provisions supplied to the Navy are, in your opinion, improved?—They certainly are.

1161. Mr. *Yorke.*] Assuming the mode of victualling the Navy by means of preserved meats to be established as before, but yet subject to many inconveniences, the whole of which cannot at once be pointed out, do you think that all, or some of the evils complained of might be met by officers superintending the manufacture of the preserved meat in the Government offices?—I do.

1162. Sir *F. Baring.*] You mean by that, that the meat might be manufactured in the Government yards?—Yes.

1163. But to a system of superintendence of the manufacture of the meat at the contractor's yard by Government officers you object?—Yes, I think it extremely objectionable.

1164. Would not such a system produce this evil: if the contractor tendered some meat and it was rejected, would not the contractor immediately come to the Admiralty and say, "I did it according to the regulations of your officer;" or, "I did it at the desire of your officer in this manner. If you would let me alone, I should furnish you with good meat, but doing it according to your regulations, or according to the order of your officer, you have no right to reject this meat;" would not that be a case of every day occurrence?—There is no doubt it would.

1165. Supposing the officer had given the contractor a direction to kill at a certain time, or had given him other directions of some kind which the contractor had remonstrated against at the time, and the meat was afterwards rejected, do you think in equity it would be possible to condemn such meat?—Certainly not in equity; and I think, still further, that whether the officer had wished the contractor to alter the mode

mode of manufacture in any respect or not, the continual presence of the inspecting officer would so far divide the responsibility between them, that the contractor would have fair grounds to complain of any rejection that was made of his meat. *E. Ede*, Esq. 23 March 1852.

1166. Mr. *Yorke.*] It would neutralise the responsibility which the obligation of the contract is intended to impose?—Yes; it is very well to have a clause in the contract enabling you to go and visit the yard where the meat is made, because you may hear that something wrong is going on, and in that case you may send in the inspector at once to detect it.

1167. Admiral *Stewart.*] If a Government inspector were to inspect the factory where the meat was made, would it not also remove the responsibility from the Government receiving officer?—I think it would.

1168. *Chairman.*] So long as the system of contract is acted upon, the whole responsibility should, in your opinion, be thrown upon the contractor?—Yes, upon the contractor and the receiving officer.

1169. And very stringent penalties should be enforced for the non-performance in any way of the contract?—Yes.

1170. That you consider is the only effectual security you can have under the contract system?—Yes.

1171. Mr. *Yorke.*] The receiving officer has only a certain responsibility, inasmuch as under a clause in the contract he has the power of opening only a certain number of canisters?—Yes, but that is a great responsibility, for if the meat turns out to be bad you call upon him to explain how it is.

1172. He might have 100 canisters, and he might examine one of those which turned out to be good, and miss 99 that were bad?—Yes; but that comes to the point which I have been asked about already, whether the only plan you can have to secure a proper article being manufactured, is for Government to manufacture the meat themselves; to which I have said, "Yes."

John Brown, Esq., called in; and Examined.

1173. *Chairman.*] WHAT is the situation which you fill in the Government Yard at Deptford?—Assistant Surgeon and Medical Storekeeper. *J. Brown*, Esq.

1174. Have you long held that situation?—I have been about 18 years in that situation.

1175. The scope of our inquiry refers to occurrences of a somewhat late date; you have been associated with the inspectors

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tors upon the surveys of preserved meats in that yard, and we wish to hear from you what the result of those surveys has been; one of the surveys I think took place in May 1851, and another in November of the same year?—On the 1st of May 1851, I was present at a survey held on some preserved meat supplied by Mr. Goldner; this was a special survey on previous deliveries at the yard.

1176. Was that an extensive survey?—No; it was not necessary to open many of the canisters on that occasion, as the meat was found to be in a very good state of preservation.

1177. And that was meat about to be delivered into store?—It had been delivered, as I have already stated; we did not open many of the canisters. I do not recollect how many were opened. I took no account of that, for I was there professionally, only to observe the state in which the meat was found to be.

1178. And the report of the inspector was on that occasion very favourable as regards the condition and quality of the meat?—Yes; we considered it unnecessary to open a great number of the canisters on account of those that we did open being found to be in such a good condition.

1179. Was there any other survey between that and November at which you were present?—No; the next survey was on the 6th of November 1851; that was a special survey, at which I was ordered by the captain superintendent to attend.

1180. And then a very large quantity of meat was examined?—Yes, a large quantity of meat was examined, but it was meat that had been to sea, and that had been returned to store; I presume that it was meat that had been supplied under the same contract.

1181. None of the meats that you had previously examined were then examined?—No.

1182. This survey took some considerable time, did it not?—Yes, more than a week; I was attending daily for more than a week, for 10 or 12 days, I suppose.

1183. And the result of that survey was very much the reverse of the survey that you had previously held there?—Yes.

1184. It has been stated that there were 2,726 canisters examined, and that 2,400 out of that number were condemned as not being of a quality fit for human food?—Yes; part of them were not fit for human food; that is to say, they

they had become completely decomposed, and the contents of each of the canisters converted into a pulpy mass.

1185. Was that the general character of the canisters?—We had many that were fit for human food; there were 326 canisters that we found perfectly good.

1186. But that was a very small quantity out of the quantity that was then delivered?—It was out of that then in store.

1187. Were many canisters in so decomposed a state as to render it almost impossible to ascertain what parts of the animal they were?—Yes, in many of them the decomposition had gone to that extent, that there was not a vestige of the original animal, either muscle, fibre, or anything else to be discovered.

1188. In other cases the decomposition was only incipient?—Yes; the decomposition had only commenced in many of the canisters, and in others it had progressed farther, but in a great number of them it had gone to the extent I now mention.

1189. During the survey did any peculiar substance, or any parts of the animal which were not in accordance with the contract, come under your observation?—In one instance only I found a piece of intestine, with some feculent matter in it; it was a very small piece; that is the only instance in which I found anything that might be objected to, except that you might object to pieces of heart or kidney, or other pieces of that description; but I do not call those improper substances.

1190. Were pieces of heart and kidney often to be found?—Yes, we frequently found pieces of heart, kidney, and tongue.

1191. Sir *F. Baring*.] Were those pieces of heart and kidney unfit for human food?—No; I considered that they were quite fit for human food, as much so as any other part of the meat.

1192. How long have you had the superintendence of the medical stores at Deptford?—About 18 years.

1193. During that time you have seen a good deal of the medical comforts supplied to the Navy?—Yes, as regards the medical comforts supplied by the medical department only, such as rice and other comforts of that description; the victualling department supplies the rest.

1194. The preserved meats that are supplied as medical comforts do not come under you?—No, they are supplied direct from the victualling department.

1195. Are

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1195. Are they under your superintendence?—No.

1196. You do not see the reports of the medical officers as to whether they attach considerable value to the preserved meats as medical comforts?—No; I have no means of seeing any reports of that kind.

1197. *Chairman.*] With respect to meats which you have had an opportunity of inspecting so large a quantity of, that were in such a state as you could ascertain what parts of the animal were preserved in the canisters, did it generally appear to you that the choice pieces of the animal were those that were thus preserved?—Yes, I think so; I should not say that they were all the best parts of the meat in the canisters, but generally speaking, it was so, there was a full proportion of the best parts of the meat.

1198. Were the canisters, in which the bad meats were, much battered and injured by the service they had been upon?—I do not know that they were; some of the canisters were very deeply indented; that arose of course from the pressure of the atmospheric air, causing very acute angles at different places, and those had sometimes become perforations, and would admit the atmospheric air, but I did not see that the canisters had been injured on board ship.

1199. Were those meats stored in canisters, or were they stored in casks?—I do not know how they had been stowed; they were delivered to me for examination; I cannot tell how they had been kept on board the vessel. I am speaking of those which had been returned into store.

1200. They were in canisters only, and not in casks?—Exactly.

1201. Have you been on any surveys since 1851?—Yes; I was on a survey on the 8th of January of this year, on a delivery of meat from Mr. Hogarth. I was sent for by the officers to give my opinion respecting this meat; it was a delivery that was tendered for acceptance there, and on examination of it, there were symptoms which caused us to doubt very strongly, and on examining it more carefully afterwards we found that the gelatine or jelly, instead of being transparent, firm and bounding, had become soft and turbid. Those are the very first symptoms of decomposition commencing in meat; where the gelatine had become softened the muscular fibre was also softened. The whole of this was rejected.

1202. Did it appear to you from the examination you made of Mr. Hogarth's meats that they were preserved on the same system as Mr. Goldner's?—I do not know; I never examined any

any of Mr. Hogarth's, except this meat which was tendered for acceptance.

1203. Did that appear to be preserved by the same process?—I cannot tell; it had become softened, and, therefore, it would be very difficult to say whether they had had recourse to the same process or not.

1204. Was that the last survey that you attended?—No; I was on a survey on the 23d of January on Mr. Moir's preserved meat.

1205. He is also a Scotch contractor?—I believe he is.

1206. What was the result of that survey?—The greater part of the contents of the canisters in that survey were found to be in a greater or less state of decomposition; decomposition was obviously going on; some of the canisters had arrived at as great a height of decomposition as decomposition could go within the canister itself.

1207. That was a survey upon the reception of meat from abroad?—No; it was on a delivery.

1208. Mr. *Yorke.*] Did any of those canisters show any outward marks opposite the places where the decomposition had first commenced?—No; the only outward mark which was clear to us to enable us to say that decomposition was going on, and had gone on to a considerable extent, was the convex state of the end of the canister; that was the result of gases being evolved while decomposition was going on within the air-tight canisters; the expansion of those gases caused the end of the canisters to bulge out.

1209. There was no other outward sign at all?—No.

1210. Not a weeping?—Those canisters that had weeping were not perfect, and, generally speaking, they were fœtid.

1211. What appearance did those canisters present?—There was decomposition, that the smell was quite sufficient to show.

1212. There was decomposition; but what appearance did the canisters on the outside present, when the decomposition was going on inside?—A little greenish exudation was to be observed on the canister.

1213. Upon what part of the canister was that to be observed?—Chiefly at the two ends of the canisters; but I think I observed that very nearly at the commencement of my examination of preserved meats; it was also to be found on the sides of the canisters, but chiefly at the bottom or the lid.

1214. Do you think that any alteration in the construction of the canisters themselves might be a greater security against decomposition?—

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decomposition?—I should imagine some improvement might be made in the construction of the canisters. I have not thought much on the subject, but I should think to strengthen the canisters would be an object of importance; the stronger the canister was the greater would be the chance of its remaining perfectly air-tight, and, consequently, of decomposition not taking place.

1215. Mr. *Fordyce.*] Were those condemnations of Hogarth's and Moir's meats, to which you have been referring, condemnations of new deliveries?—I have not been present at any survey of Hogarth's meats, except of fresh deliveries, and we never rejected any of his meats at any survey which I have attended of Hogarth's meat, except in the one case that I mentioned; that was a delivery that was tendered for acceptance, by Hogarth, at the yard; it was not meat returned into store from a ship.

1216. With regard to Moir's meat, was that on delivery?—With regard to Moir's meat, that was rejected on account of having symptoms of decomposition after having been delivered into store.

1217. Are you aware whether there have been any condemnations of preserved meats, lately, that have been supplied to the Arctic ships that are now fitting out?—Yes; some little time back, I do not recollect how long ago exactly, we had to reject some of the preserved meats that had been received for the Arctic Expedition. It was only one supply; it was a purchase, not a supply by contract; at least the examining officers told me so. These meats I did not consider were in a fit state to be taken, at least I thought it was doubtful whether they would keep; they were supplied by a person named Cooper.

1218. Is he in London?—I think he is.

1219. Have they been manufactured under the superintendence of officers?—No, they were tendered for the new Arctic Expedition; they were sent to the Deptford Victualling Yard, to be supplied to the ships about to go out.

1220. I understand from some former evidence that there was some inspection under the superintendence of the officers of the ship?—Yes; that was the inspection I allude to; the officers of the ship were there. Dr. Lyall met me there along with the purser, and all the examining officers of our establishment; the officers of the ship were sent to examine this meat, and all the other articles of provision supplied for the expedition, and we were unanimously of opinion that the meat ought not to be taken.

1221. Those

1221. Those were Cooper's meats?—Yes, and they were rejected.

1222. Lord *C. Hamilton.*] Since the use of preserved meat has entered so largely into the victualling of the Navy, have you turned your attention to the best process of preserving the meat?—No; I have not been so situated as to lead me to do so.

1223. You have been present at several examinations, and you have, no doubt, endeavoured to satisfy yourself as to what the general cause of the failure of those meats was?—It is impossible always to ascertain that, even if the canisters are perfectly air-tight; if they are hermetically sealed, so that you would hardly think it possible that decomposition should go on, still as it is impossible, I think, to form a perfect vacuum, decomposition does go on.

1224. From your experience, should you say that you conceived that the failure in those cases arose from the deficient process of preserving the meat, or from the subsequent treatment of the canisters by their being bruised?—If perforation had taken place in the canisters, no doubt immediate putrefaction would be the result, but that is not the case generally speaking. I think the failure must arise from the deficient process of preserving the meat, and not from any accident that might occur to the canisters.

1225. *Chairman.*] If the meat was at all tainted before it was preserved, that would cause decomposition?—Yes; and it must be borne in mind that the meat ought to be sufficiently dried before it is preserved, for if it is not sufficiently dried it is impossible to keep it. There is a certain quantity of albumen in all animals, and this albumen is very easily dried if sufficient heat is used to dry it, and if great heat be used it will be turned into a white horny mass; the white of an egg contains albumen, and so does the water in the blood in man and animals; a very little heat causes that albumen to coagulate, and if you go on gradually increasing the heat it becomes firm, and when that is done there is much less chance of decomposition going on.

1226. Lord *C. Hamilton.*] In preparing large pieces of meat, if the albumen coagulates on the outside, does not that prevent the escape of the moisture, and cause decomposition?—Yes.

1227. Would you not therefore recommend that the process of increasing the heat should be very gradual?—Yes; that is the view I take of it, without having very much considered the matter.

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1228. Mr. *Yorke.*] Has it ever occurred to you that the introduction of any antiseptic substance of any kind would be useful in preventing decomposition?—That has been suggested to me by others, but I cannot give an opinion upon that. There is one thing which I may mention: it is rather a curious fact, that in all the canisters where the decomposition had gone on as far as it could, where perforation had taken place, they offered the pulpy mass, and had the usual odour of putrifying animal matter; but in the other case, where the canisters were perfect, though we had the pulpy mass, there was no emission of any fœtid odour from it. I do not know how to account for it, but it is invariably the fact.

1229. You say that where the canisters have been perfectly air-tight, decomposition has taken place in the canisters?—There is no doubt of it, because the whole component parts of the meat have been changed.

1230. Might you not infer from that that no precaution could guard against decomposition?—I do not see how you could guard against this effect taking place, the canisters being perfect; the only question was whether the meat had been boiled enough; whether the watery part of the thing had been dried sufficiently or not; that would be a matter of great nicety, perhaps, and if it were not attended to decomposition might take place.

1231. Did the fact of the canister becoming inflated show that there was no orifice through which the air could escape?—Yes.

1232. You might therefore presume that the canister was perfectly air tight at the time?—Yes.

1233. Then if corruption had taken place in such a canister it must have been from the meat not being sufficiently cured?—That I cannot say.

1234. Might it not arise from the meat not being perfectly fresh at the time it was preserved?—It might be so, but I do not think it would be the interest of any man to put up meat that was not perfectly fresh.

1235. *Chairman.*] Do you think that supposing a very humid and warm state of the atmosphere prevailed at the time the animals were slaughtered, that would have an effect?—That has always an effect; if you destroy the life of an animal in a certain temperature, it has always a powerful effect; in a humid warm temperature the meat becomes much more flabby than in winter, when the weather is very cold; meat killed in America is very much firmer than meat killed in this country.

1236. Is

1236. Is that on account of the dryness of the atmosphere?—Yes, and the lowness of the temperature.

1237. Mr. *Yorke.*] If meat was put up rather warm into a hermetically sealed canister, it would not have the effect of decomposing?—It ought not to have the effect of decomposing if it be hermetically sealed, and there be no air in it; but it is difficult to account for the decomposition taking place.

1238. But it does take place?—Yes, it does, and therefore there must be some air or fluid to enable the decomposition to go on; then after the commencement of decomposition it is easy enough to understand how it continues, for gases are evolved every hour, and decomposition goes on till none of the constituent parts of the meat are to be seen; there is not a vestige of the muscular fibre or tendon; nothing but this pulpy mass to be discovered.

1239. *Chairman.*] Are you always sure that when the canister bulges out, and it is not perforated, upon opening it it will emit no smell?—As far as I remember, we have always found it so; there was no perceptible fetor, such as there would have been had the same kind of decomposition gone on with animal matter exposed to the atmospheric air; every one knows the odour of putrefaction, and that would have been the odour emitted, but such was not the case in these canisters.

1240. The fact of those canisters bulging proved that they were air tight?—Yes; the reason of their bulging was the evolution of gases inside; the gases, when they expanded, necessarily bulged out the end of the canister.

1241. A bad odour was emitted from the canisters which had not bulged, but which were perforated from some cause or other?—Yes.

1242. Mr. *Yorke.*] In opening those canisters, do you find them quite closely packed, or are there some intervals left?—They are quite closely packed; the meat comes up to the lid in most of them.

1243. The meat is rammed in?—Yes, I suppose so; the canisters are as full as they can be.

Veneris, 26° *die Martii*, 1852.

MEMBERS PRESENT.

Sir William Jolliffe.	Mr. Yorke.
Mr. Miles.	Admiral Bowles.
Mr. Gwyn.	Mr. Fordyce.
Lord Claud Hamilton.	Mr. Alderman Humphery.
Admiral Stewart.	

SIR WILLIAM G. H. JOLLIFFE, BART., IN THE CHAIR.

Mr. *Joseph Pinhorn*, called in; and Examined.

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1244. *Chairman.*] YOU are Storekeeper at Clarence Yard, at Gosport?—I am.

1245. How long have you filled that situation?—About 15 months, since January 1851; my appointment was in the latter part of December 1850.

1246. Were you employed in the Clarence Yard previously to that?—No; I was store receiver in Woolwich Dockyard previously to that.

1247. Are the meat stores in the Clarence Yard under your care?—Yes.

1248. And they have been so since January last year?—They have.

1249. At the time you were appointed what was the quantity of meats, of different descriptions, which you had in those stores?—I cannot undertake to say; the quantity varies very much every day, but of preserved meats there might have been 30,000 lbs.; of the other meat I cannot say what quantity there was, without reference to the books.

1250. Has much of that meat been issued to ships going on foreign service, and returned into store, or was the chief part of it meat which had never been issued from the store?—Nearly the whole of the salt meats had not been issued, but some preserved meats had been issued, and some had been returned from ships paid off.

1251. What proportion did they bear to the whole?—I should say that one-third of the preserved meats had been returned

returned from ships paid off, but a very small propertion of the salt.

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1252. In what condition were the preserved meats at that time?—When the preserved meat was examined some of it was very bad; but we could not tell the age of the meat, because there were no dates on the labels.

1253. The labels were, formerly, merely paper labels?—Yes, they were all labelled; but latterly the date has been stamped upon a tin plate, put upon the canisters, stating the year the meat is preserved in, but originally there was no date put upon the canisters; the only dates upon the canisters were 1849 and 1850, principally 1849.

1254. Did they state the date of the contract?—Not the date of the contract, but the date when the meat was preserved, and the contractor's name.

1255. So that you could tell, by looking at the canisters, what contract it was supplied under?—No; but the date of cure, and the weight of the canisters.

1256. Do canisters of the same size vary much in weight?—Not those of the same size; but some weighed 32 lbs., and others only 4 lbs.; they went up, from 4 lbs. to 32 lbs. They were 4, 6, 8, 10, 11, 12, 13, 14, 15, and 17 lbs., and then they went from 17 lbs. to 32 lbs.

1257. Was the meat in the canisters of 32 lbs. weight, of the same description as that in the smaller canisters?—The meat in the 32 lb. canisters was all in a state of pulp; I do not know the age of the meat, because it had only paper labels.

1258. Was it universally bad?—All the large canisters were bad; there were not a great many, but what there were, were all bad.

1259. What was the state of the store in consequence of having that quantity of meat in it?—There was a very offensive effluvium arose from the store, in consequence of which the meat was removed to the lower store, but I attribute that to some of the canisters being cracked, although we could not detect the cracks; because I do not consider that the effluvium could arise from the canisters unless there were cracks or holes in the canisters to let it out.

1260. You say the effluvium from the store was very bad?—Very bad indeed.

1261. Were any communications made by you to the Admiralty upon the subject?—Yes.

1262. When was that?—That was in May and June, last year.

1263. There had been some rejection previous to June?—Yes,

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Yes, but that was not from any offensive smell arising from the meat, but because the meat was not according to contract; it was in April 1851, a rejection of 75,000 lbs. sent in.

1264. That was the first delivery from Mr. Goldner after you became storekeeper of the yard?—Yes.

1265. How much was that one delivery?—About 75,000 lbs.

1266. And the whole of that was rejected?—The whole of that was rejected, because when you came to one or two bad canisters, you could not tell whether the next one was a good or a bad one; finding it not to be according to the terms of the contract, it was rejected, and reported to the Board.

1267. What was the nature of the survey which you instituted?—We opened a certain number of canisters, taken indiscriminately; the canisters were all piled up, and I selected one wherever I pleased, and the master attendant did the same.

1268. Will you describe what was actually done upon that occasion, in April 1851; what number of canisters did you open?—I think we opened about 10 (and nine subsequently); we opened canisters till we came to two or three bad ones; my opinion was, that after we came to one bad one, we ought not to go on, because the meat being hermetically sealed, you cannot tell whether the next is good or bad.

1269. Out of this number, how many did you find bad?—I did not think it was agreeable to the contract; I do not mean to say that they were stinking or putrid, but they were very much over-cooked; in small pieces, some tainted and some in a pulpy state; you might pass your finger right to the bottom of the canister without meeting with any resistance.

1270. Were those meats in very small pieces, or tolerably large?—In small pieces generally in Mr. Goldner's canisters.

1271. Had they a dissected appearance, as if they had been cut into pieces?—No, they appeared rather as if they had been boiled, and then clapped together in a mass, and packed into the canisters.

1272. And you thought that the whole of those that you examined upon that occasion were not according to the contract?—I thought they were not according to the contract, because they contained heart and tongue, and what I call leather or sinew, and things not allowed in the contract; the contract is very stringent, and says that everything shall be of the best; we found that it was not of the best, and it was our duty then to reject and report it to the Board.

1273. Had

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1273. Had you been in the habit of seeing preserved meats before?—Not till then; but I could see in a moment that it was not according to contract.

1274. In consequence of this, the whole delivery was rejected?—Yes; only about 38,000 lbs. had been unpacked, but in consequence of that turning out so bad, the rest was not unpacked. The whole delivery was 75,000 lbs., and the whole was removed by the contractor; but previously to its removal there was a special survey ordered upon it, and surveying officers were selected from the ships in harbour, together with the storekeeper of Deptford Victualling Yard, and they, in concurrence with the officers of the yard, condemned it.

1275. When was that?—That was within a few days of the original survey, on the 3d of May.

1276. Did they open the whole of the canisters?—No, nine canisters only, and they found them quite contrary to the terms of the contract, and, in their opinion, not fit for the service.

1277. When was it that Mr. Goldner sent a man to examine the canisters?—At the time of this first receipt; when he found it was rejected, he sent a gentleman of the name of Ritchie; Mr. Ritchie went over the canisters, and said he would engage to pick out all the bad canisters, and supply good in lieu of them; but I told him he should have done that before they came to the Clarence Yard; he then applied to the comptroller of victualling to be permitted to change the canisters, and he said he would send in another batch of good.

1278. He was not allowed to do that, but he was told to take them away?—Yes.

1279. Did he take the whole away?—Yes, he took away the whole 75,000 lbs.

1280. Was this all under the contract of 1850?—It was the last delivery under the contract of 2d May 1850. All the contracts were similar in their conditions, except that latterly the meat is guaranteed for five years from the date of the delivery; and that was the cause of the dates being placed on the tin labels affixed upon the canisters.

1281. What officers of your yard were associated with you in the usual surveys which took place upon the delivery of the meats?—The master attendant. The two officers who made the survey were the master attendant and the storekeeper.

1282. When was the general survey ordered upon Goldner's meats?—In November. I beg to explain that there were

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were two general surveys ordered: the first at the latter end of April upon the whole of the preserved meats then in store, or in course of delivery. This survey was held in May, in the presence of the parties named in reply to Question 1274, on which occasion a few canisters only were opened. The second survey was ordered in November, and took place in December and January, when every canister in store was opened under the inspection of the master attendant, Dr. M'Kecknie, and myself.

1283. Do you remember the Lords of the Admiralty being at the Clarence Yard in August?—Yes.

1284. Do you recollect anything occurring at the time when they were there with regard to the stores in the Clarence Yard?—No, I do not.

1285. Do you recollect that they desired to call in the magistrates?—That was not when their Lordships were there; that was subsequent; that was an arrangement made by the Admiralty solicitor. When the meat became very offensive we had instructions from Mr. Greetham, the solicitor at Portsmouth, who is agent for Mr. Robson, the Admiralty solicitor, saying, that arrangements were being made to call in the magistrates; and we were told to let the guardians of the poor visit the stores. Eight or ten gentlemen came; and after that Sir Edward Parry and myself were summoned before the magistrates to show cause why we had kept anything in the stores that was likely to be injurious to the health of the neighbourhood. But Mr. Greetham said, that though we were summoned we were not to attend; that the magistrates would seize the meat and throw it overboard. The consequence was that we did not attend the summons. But the magistrates would take no further steps in it; they said that they had done all that they could; that they would not condemn the meat, but that the Admiralty must find their own remedy.

1286. Was that after the general survey was ordered upon all the preserved meats in store?—Yes; the survey was ordered on the 26th April last, and it was all surveyed and cleared away from the serviceable store before the Lords of the Admiralty came down.

1287. There were certain persons appointed to make that survey?—There was only Dr. M'Kecknie in addition to the master attendant and myself upon the second survey; but there was a general survey ordered in April upon this particular meat; 75,000 lbs. were condemned; and also upon all the meat which had been returned from the ships. And all those

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those officers of the Navy I spoke of, six or seven of them, attended the survey, with the officers of the yard; two or three officers from the flag ship, the "Victory;" two officers from the "Blenheim," and one officer from the "Excellent."

1288. With regard to the latter survey, which took place towards the end of the year, what was the nature of that survey?—The order was to open every canister, and the superintendent was instructed to give that which was good to the wives and children of the sailors and marines in the neighbourhood who were deserving objects, and to throw the bad overboard.

1289. Who were appointed to make that survey?—Dr. M'Kecknie, the master attendant (Mr. Davies) and myself.

1290. And that occupied a considerable time?—Yes, it occupied three weeks; we did not survey every day, sometimes only every other day; we surveyed from four to six hundred canisters daily while we were employed upon it.

1291. And the greater portion of them was found to be bad?—I think about one-sixth of the whole was found to be according to the terms of the contract.

1292. Mr. *Miles.*] One-sixth out of how many pounds?—I think out of 53,000 lbs.

1293. *Chairman.*] What was the exact period at which that took place?—It was in December and January principally, and a small quantity in February.

1294. With respect to improper substances, you have said that you rejected the whole delivery under the contract when you found heart, tongue and other matters which might be described under the term "offal"?—Yes; I consider heart, tongue, sweetbread, liver, or anything of that kind, "offal," because it is not according to the terms of the contract; the contract says that the whole shall be meat of the best quality.

1295. Did you find upon that occasion other improper substances?—Yes; we found in 12 canisters part of the intestines, and in nine canisters excrement was in the gut, but they were short pieces, about from three to four inches in length.

1296. Are you now speaking of the general survey which took place at the end of the year?—I am speaking of the second survey, when every canister was opened.

1297. When was the order given to discontinue the issue of these meats?—The order was given after the first survey in May, when the whole that was then in store was reported to be unfit for the service, viz. on the 1st September 1851.

1298. Were you aware that orders were sent to ships on foreign

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foreign stations to return all that they had on board?—Yes; there was a printed circular, dated 31st October 1851, and we had some returned to us.

1299. Have you any of these preserved meats now in store?—There is a quantity which came home by the "Arrogant," and also a quantity that came home by the "Superb," which have not been touched or examined.

1300. Did you receive any meats from any other contractor besides Mr. Goldner?—Not direct from the contractor, excepting 800 canisters from Messrs. Powell; but we have received some of Mr. Hogarth's from Deptford.

1301. Were those examined?—Only the outside of the canisters received from Deptford were examined, and they all appeared to be perfect; but after they had been in store five or six months some of the ends got convex from generating gas in the inside, and we opened them, and although all the meat was found to be in a solid mass, a sort of watery gaseous matter had generated, which had extended the ends of the canisters, and the meat had become putrid, and emitted a most offensive smell. Messrs. Powell's meat was inspected by opening a portion of the canisters, and was found to be of excellent quality.

1302. That is meat delivered by Mr. Hogarth?—Yes. We had not a large quantity of it, but we found 49 canisters in that state, which were perfect when they came in; and since that examination there are now four more in the same state, with the ends convex; and we know that that is a sign of the meat turning bad.

1303. The moment you see that those gases have been generated you know that the meat is bad?—Yes; when you stab the canister, previous to cutting the top off, the fluid flies out just as if there were a power of steam inside.

1304. Is it very offensive?—Exceedingly offensive. This meat is cured at Aberdeen.

1305. Lord *C. Hamilton.*] You said that you have only been in your present situation about a year?—Fifteen months.

1306. In your stores do you keep the deliveries, under the different contracts, separate?—Yes; besides, the name of the contractor is upon the canisters.

1307. The different years are also kept separate?—Yes, every sort is kept by itself.

1308. Supposing that you got from the same contractor two different qualities, at different prices, would they be mixed?—I do not know anything about the price; those of the same weight and the same date would be kept together; and I have

have no doubt that those of the same weight and the same date would be the same price, because we do not have two contracts in one year.

1309. When meats are returned into store from foreign stations, or from vessels coming home, are they put with the stores you had previously?—They are put by themselves; they are put in the unserviceable store till they are examined, and then, if they are found serviceable, they are put with the other stores; they are never put into the serviceable store till after they are examined.

1310. You said that there was a quantity, of 75,000lbs., that was all rejected because, even where the meat was not bad, it was not in conformity with the contract?—I thought not.

1311. You described it as if the meat had been boiled before it was put into the tin?—It is all boiled before it is put in, but that had been boiled too much.

1312. Does that apply only to that one delivery?—Only to that one; it is the only contract of Mr. Goldner's, the receipt of which I ever attended.

1313. You were understood also to speak of the examinations that were made on a general survey, in which you said that one-sixth was found to be good; was that which was found to be good of a different quality from the preceding delivery?—It was a better description of meat; there was nothing offensive about it.

1314. Did the objection of it being over-cooked also apply to that?—Perhaps it did in some degree; it was not so badly cooked as not to be eatable. Some that was condemned was boiled to a perfect pulp.

1315. Was there any difference between the size of the pieces of meat in that which was good, in the subsequent survey, and in that which you condemned *en masse*?—Some of the pieces were solid meat, but that was not the general state of it.

1316. Was there a great difference between the whole delivery, which you rejected, and that which you subsequently found to be good?—There were different degrees of badness and of goodness; some of it was not so much cooked as some other.

1317. You said that, latterly, the contracts have provided that it shall keep good for five years; do you know what the period in the contracts was before that?—I do not know; there was no date upon the canisters, so that I could not tell.

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1318. Who sent you the order to open every canister?—The comptroller of victualling.

1319. Up to what time did the returns of meat from foreign stations and from ships go?—Up to the 4th of February; there has been some meat returned now within the last few days.

1320. Can your returns be ascertained up to the present date?—Certainly.

1321. Has not the "Cormorant" lately returned from abroad?—Yes; but she was not paid off at Portsmouth.

1322. Has there been any examination of her stores?—Not at the Clarence Yard; we have very little unexamined except what has been returned from the "Arrogant" and the "Superb;" all that has been returned prior to those has been examined.

1323. Can you state the result of the examination of the "Cormorant's" stores?—No, I cannot state the result; most probably they were returned to Deptford Victualling Yard, as she was paid off at Woolwich.

1324. Mr. *Gwyn.*] You said that some of those canisters contained larger pieces, and some smaller, which were the worst?—Some were very good meat indeed, but there was no certainty in it; you could not tell what was going to be good, and what to be bad, till you opened the canister.

1325. Upon the whole, which do you think was the best, the large pieces or the small?—I think the large pieces were the worst upon the whole, except those that were cut up too small.

1326. Mr. *Yorke.*] Had you any meat from a man of the name of Cooper?—No; I know Cooper and Gamble, but we have not had any meat from them at Gosport.

1327. Was there any of Cooper's in the yard at any time? Not since I have been there.

1328. Do you know whether Cooper has ever contracted for the Navy?—I do not.

1329. Nor whether any purchases have been made of him?—I do not know.

1330. Do you know anything of Cooper's preserved meat?—Yes; I have tasted Cooper's meat after it has been brought home; some that was brought home from the "Fury;" that was a great many years back.

1331. Did he supply the "Fury"?—I do not know whether he supplied the "Fury" directly. But nothing can be finer than Hogarth's meat to look at; you might turn it out in one solid mass upon any gentleman's table; latterly we

we had some kept more than a month under the kiln, at 85° to 90° of heat, and only two canisters went up a little, and they went down again when they got cool; there was not the least appearance of any gas being generated.

1332. Admiral *Bowles.*] How long have you been acquainted with preserved meats?—Only 15 months.

1333. Were you previously in the Navy?—I was not in the Navy previously.

1334. Then you knew nothing about preserved meat till then?—Not till I went to the Clarence Yard.

1335. Mr. *Miles.*] You have spoken of meat being preserved in canisters as large as 32 lbs.; must not that meat have been supplied under the original contract?—Yes; it appeared to be rather old meat. We have nothing of the kind now. We have no trace of it except those large canisters returned from the ships paid off.

1336. Do you find that there is any difference as to the meat being more or less putrid according to whether it is in large or small canisters?—Generally I think the small ones were the best.

1337. I understood you to say that you, as the head of the store department at the Clarence Yard, were summoned before the magistrates?—Sir Edward Parry was summoned as the head. I was summoned also.

1338. Have you that summons by you?—No.

1339. What was the nature of the complaint which you were to answer?—For keeping an article in store that was injurious or dangerous to the health of the neighbourhood.

1340. What was the date of that?—It was dated the 20th of August last year.

1341. That was anterior to the visit of the Lords Commissioners of the Admiralty?—No; a short time after their Lordships' visit.

1342. Was the smell exceedingly offensive?—Very much so.

1343. When was the meat got rid of?—It was disposed of at the latter end of the year, just a little after Christmas.

1344. So that it was not all destroyed even when the Lords of the Admiralty visited the yard?—No; the contractor's agent took away all that he considered the worst.

1345. How much did he take away?—I think about 17,335 lbs. in 2,093 canisters.

1346. Out of how much?—Out of 30,000 lbs.

1347. Were the rest of the 30,000 lbs. that were left good?—No; when they came to be opened about one-sixth was found good, and the rest was condemned.

1348. Out

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1348. Out of 30,000 lbs., 17,000 lbs. were taken away as bad by Goldner's agent, and then out of the remainder not above one-sixth were found good?—When we came to the end there were 53,000 lbs., and then we found about 9,000 lbs. good; the stock accumulated by the returns from foreign stations and from ships to about 53,000 lbs., and out of that about one-sixth was found good, about 9,000 lbs.

1349. You stated that Mr. Goldner was anxious to take away about 2,000 cases?—Mr. Ritchie offered to take away any quantity, provided he was permitted to replace it with good meat; but he was called upon to remove the whole, when the whole was condemned and rejected, without being permitted to replace any portion of it.

1350. How much had you in store before the delivery in April 1851?—I should say probably 30,000 lbs.

1351. At what period was that?—In the beginning of 1851.

1352. Then a delivery took place of 75,000 lbs.?—Yes.

1353. When did that take place?—In April 1851.

1354. Making altogether in store then 105,000 lbs.?—Yes; but we did not receive the 75,000 lbs., although Mr. Goldner tendered it, therefore we never considered that it was in store, because he took it away after it was rejected.

1355. Then the 75,000 lbs. was rejected without being taken in charge?—Yes.

1356. Then that left you with the original quantity of 30,000 lbs.?—Yes.

1357. When did the first rejection of any of those 30,000 lbs. take place?—There was a general survey in May; it began on the 9th of May; then the whole of that that was then in store was condemned as unfit for the service, and Mr. Goldner was called upon to take it away, and he said, No, I shall not do that unless you let me send some other instead. He was called upon again, pointing out the dangerous state of the store from this deleterious matter being floating about; then he sent an agent down to select what that agent would consider bad; his name was Cavaliero, and he selected out of the quantity then in store 2,093 canisters, and to select them he passed them through his hands, and those that sounded washy I suppose he knew must be bad. He said he was very sorry he could take no more, but that was as far as his instructions went; but he gave me to understand that, although he took only that quantity away, he was satisfied that the rest would all be bad very shortly.

1358. Then, barring what was returned from ships coming home,

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home, you had actually not preserved meat in store after the condemnation of the 30,000 lbs.?—Yes, it was in store, though it was condemned, and not fit for issue; and we had also a small quantity of Hogarth's.

1359. Then what quantity had you after that coming into the store from ships?—Perhaps 23,000 lbs. or 24,000 lbs.

1360. How much of that has been condemned?—The whole: it made in the whole about 54,000 lbs. Those 30,000 lbs. went into the general lot, which were ordered to be re-surveyed by opening every canister; when it was re-surveyed, there were altogether about 54,000 lbs. surveyed, and out of that about 9,000 lbs. were found to be good.

1361. So that it appears now, that actually, out of the whole quantity which you have mentioned, not above 9,000 lbs. of Goldner's meat was good?—The quantity found to be good was 9,258 lbs.

1362. *Chairman.*] You say that an examination on the part of Goldner took place by a man of the name of Cavaliero?—Yes; Henry Cavaliero.

1363. Do you know who he is?—I never saw him before; he seemed a decent sort of man; he came down by order of Mr. Ritchie, who is Mr. Goldner's agent in London.

1364. You do not know that he lives in the Minories?—I do not know where he lives.

1365. With regard to the examination of the meats returned from ships in commission, when did the last examination take place of meats returned from a ship coming home from abroad?—About three weeks since.

1366. What ship was it?—There were two; the "Gorgon" and "Hecla" steam-vessels.

1367. Were the stores of both ships together when they were surveyed, three weeks ago?—No, they were kept quite distinct; everything is kept distinct that is returned from a ship, till it is arranged what shall become of it.

1368. What was the nature of that examination?—The same as the others; the meat was much better than it had been on the previous examinations. I dare say one-half of it was found to be good; it seemed quite a different sort of meat. In one ship the meat returned was very fair compared with some we had; in the other ship, I do not think there were above seven canisters good out of 70 or 80.

1369. Which ship was that?—The comparatively good was from the "Hecla," and the bad from the "Gorgon."

1370. Mr. *Gwyn.*] Under whose contract was that meat supplied?—Mr. Goldner's. The whole of the meat that has been

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been examined in that way has been under Goldner's contract.

1371. Do you think that Mr. Goldner sent worse meat to your yard than to other yards?—I have no means of judging; I do not know why he should do so; much of our meat, I believe, originally came from Deptford Yard.

1372. Admiral *Bowles.*] Had you had any previous experience in victualling before you went to the Clarence Yard?—No.

1373. What situation did you fill before that?—I was store receiver at Woolwich Yard.

1374. Are you able, from any experience you have had in this particular department of victualling, to form any opinion as to the cause why this preserved meat, which had in former years been considered good, and to be depended upon, has latterly disappointed everybody's expectations in this way?—I think it must have been the fault of the cooking in the first instance; that they cooked it too much; because Mr. Hogarth's meat, for instance, which is the same description of meat, we always found in one compact mass. The other we found in small pieces of meat; some of them had been tied together with string, and then put into the canister.

1375. Was it all without fat?—No; there was a great deal of fat. The fat appeared to have been poured into the canister; it appeared like fat which had been clarified; like dripping made hot and poured in. It was not fat attached to the meat, as Mr. Hogarth's is, but rendered fat, and poured in. Mr. Ritchie, when he was down, insisted that it was a portion of the meat, but it was clear to me that it was not, and the rolling of the canisters had made it fall on one side.

1376. Do you think that sufficient care is taken in the preservation of the tin canisters?—I did not think so originally, because they were put into casks, and the casks were rolled about; but now that, by the order of comptroller of victualling, the meat is put into square wooden cases, which hold from 10 to 20 canisters, I do not think any danger can arise to it. When it was put into the casks, I frequently noticed a great dent in the canister.

1377. Of what shape were the 32 lb. canisters?—The same shape as the others; like the crown of your hat.

1378. Mr. *Fordyce.*] Do the labels contain the dates as well as the name of the contractor?—They do now, but they did not originally. Originally it was a printed paper label, containing, "Goldner's stewed beef," or something of that sort,

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sort, upon it, and then a long history of its good qualities. But now there is a label, with the name and the date.

1379. How long has that been the case?—The delivery in 1850 was the first with those labels upon it.

1380. When condemnations have occurred, has there been a larger proportion of the large canisters condemned, or of the small?—I think the small generally have been the best meat; I recollect some containing mutton that were exceedingly good; those were all 4 lb. canisters; the meat appears to get soft outside between the canister and the tin; it appears to form a coating of loose matter, which gradually eats into the interior of the meat; but some were all pulp.

1381. Have you occasionally observed a great deal of injury from rough usage in stowing the canisters in the ship?—We occasionally observe that a canister is damaged, and when the canister is damaged the meat becomes putrid immediately; but we frequently have canisters which are sent in by the contractor indented in the same way, and they would be all rejected, though the contractor maintains that they are the best, because he says that the vacuum is more perfect.

1382. Have you ever discovered any improper substances in Mr. Hogarth's meat?—Not a particle; not even a piece of sinew, or skin. The meat is most excellent in my judgment.

1383. Did you find any in Mr. Gamble's?—I have never had any preserved meat since I have been there, but Hogarth's, Goldner's, and Powell's.

1384. Did these preserved meats appear to give general satisfaction to the Navy previously to these late condemnations?—I am not prepared to answer that question. I have no means of getting at the fact. Those are all confidential communications to the Admiralty which I should not know.

1385. Do you manufacture flour at Portsmouth?—Yes.

1386. Is that done satisfactorily; are there any complaints of it?—I never heard one.

1387. Do you manufacture biscuit?—Yes.

1388. Is that in the same manner satisfactory?—It is the best in the service, I imagine; everybody is delighted with coming to Gosport to get provisions from the Clarence Yard; fresh beef, or biscuit, or flour; but it may be as good at the other yards.

1389. Have you any mustard?—Yes; we get that ready ground; it comes from Deptford. We never receive any from a contractor. I do not think the mustard is very genuine; we have had some occasionally that seems to turn black. I believe there is great difficulty in getting genuine mustard at all.

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all. It is now sent in in tin canisters; four canisters are fitted in a square box, so that no damage can come to the canisters now.

1390. Is the quality of the provisions generally superior now to what it used to be?—I do not know what they used to be, but I think they are very good now.

1391. Admiral *Stewart.*] Previously to the last survey which you held, had you ever discovered any intestines or other substances unfit for human food in one or more canisters?—No intestine or anything repulsive. We have found heart and tongue, and what appeared like the sinew of the neck, which we commonly call "leather," but I never found anything else that was offensive.

1392. Mr. *Yorke.*] Do you recollect any complaints having been made of parts of the intestines of animals having been found?—Never, at the Clarence Yard.

1393. Did you ever see a letter from the Admiralty to Mr. Addington, of the 26th of April 1851, in which it is stated that the offal parts and intestines of animals had been found?—No, I never saw the letter.

1394. You do not know what was the origin of the introduction of those words into the contract?—I do not know, except from common rumour. It is said that it was reported to have been found in some of the ships.

Mr. *John Davies*, called in; and Examined.

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1395. *Chairman.*] WHAT is your situation at the Clarence Yard?—I am Master Attendant at the Clarence Yard.

1396. How long have you occupied that post?—Six years in July next.

1397. What is the peculiar nature of your duties with respect to stores in that yard?—To superintend the receiving of all stores connected with the establishment.

1398. The yard is a victualling yard?—It is.

1399. Manufacture of biscuit and of various other things is carried on there?—Yes, we grind our wheat and manufacture our own flour.

1400. And it contains a store of meats, which are served out, both salt and preserved meat, for the Navy?—Yes.

1401. When preserved meats are received it is your duty to inspect them?—It is.

1402. For that purpose you are associated with the storekeeper?—Yes.

1403. How

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1403. How long has preserved meat been in general use as an article of provisions in the Navy?—I think from the early part of 1847 it has been in general use.

1404. Previously to that it was only issued to sea-going ships under certain peculiar circumstances?—Yes, and at certain stations, not at all stations.

1405. But since 1847, preserved meats have been issued as a general provision, with other provisions for the use of ships on all foreign stations?—Yes.

1406. What was the usual amount of store of preserved meats which you kept in the yard at Gosport?—At some times we have not had so much as at other times, because we have generally been supplied from Deptford, and we have a vessel that is continually going up and down from Portsmouth to Deptford. When she comes, she brings a certain quantity of what we do not receive from contractors, such as chocolate, sugar, peas, and oatmeal which come from Deptford, and sometimes preserved meats also are brought with it. Sometimes we have not nearly so much as we have at other times in the yard, but we have had as much as 6,000 canisters in store.

1407. When was that very large quantity in store?—That was the first we received under contract from Mr. Goldner in November 1850.

1408. You had been in the habit of receiving it previously to that from Deptford Yard?—Always, except some returns from ships; the ships coming in and being paid off have had preserved meats on board, and those were returned to us with their other provisions.

1409. In November 1850, a very large delivery was made from Mr. Goldner into your stores?—Yes; about 50,000 lbs.

1410. What was the nature of the examination you made upon that delivery?—In the first place, we laid out the different canisters of twelves, nines, and sixes, according to the number of pounds that the canisters contained. They were placed all along the whole of one loft, and then, at the time when the contractor's agent, Mr. Ritchie, was present, I myself, with the other officers in company, would go to a certain one any where promiscuously, and take a canister out of the different grades, and then it was opened for the inspection of the officers and the agent that was present on the contractor's part.

1411. Was the whole of that delivery under that contract received and approved of?—The whole of those 50,000 lbs. was received as good and fit for Her Majesty's service.

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1412. When was the next contract delivered at your yard by Mr. Goldner?—We had some delivered, I think, about April, or in the spring of 1851.

1413. Was that under the same contract?—It was under the contract of May 1850.

1414. Was the same inspection instituted then?—The same inspection was carried out exactly as in November 1850.

1415. What was the result of that inspection?—The moment we commenced opening those canisters, we found the meat was quite different, inferior in quality; we turned out one or two canisters, and found a portion of tongue, and I think a little heart in another.

1416. The quality of the meat was not in your opinion according to the contract?—Certainly not; it was decidedly of a different quality from what we received in November 1850.

1417. Are you aware where that meat was cured or manufactured?—I have been told that it was at Galatz, on the bank of the Danube.

1418. Both the contracts of 1850 and 1851?—I have heard say so; I have no positive proof of it.

1419. Will you describe what was the appearance of the meat that you examined in April 1851?—We cut the top of the canister off; it is turned out in a dish, and then outside the meat we generally find, in preserved meats, a complete jelly gelatine, quite hard, very nice to the sight. But here we could see directly that it was all thin and of a darker colour, and in fact it had not a healthy appearance; and when we came to cut it through we found that the pieces were in lumps in small pieces packed together, not the large pieces that ought to be put in a canister.

1420. It appeared to be small pieces compressed together?—Yes, and of inferior quality.

1421. Had it a stringy appearance?—Rather so.

1422. Did it appear more than ordinarily cooked?—I think it appeared a little more boiled than what we received in 1850.

1423. Altogether you felt convinced in your mind that the meat that was then tendered was not in accordance with the contract?—Decidedly, I had a firm opinion that it was certainly not nearly so good meat as we got in 1850.

1424. Was it your duty, or the duty of the storekeeper, to report that at once to the Admiralty?—It was my duty to do so in conjunction with the storekeeper, the master attendant being

being the superior officer in the absence of the superintendent; we made our report to the captain superintendent, who transmitted it to the comptroller of victualling.

1425. Then in consequence of this large rejection in May, a general survey was ordered?—Yes; I think there were 38,000 lbs. tendered in May, at the end of April or the beginning of May, and that we rejected immediately; then the remainder of that 75,000 lbs., which was to come in May, was tendered, but we never even opened the casks, because it was some that belonged to the same quantity as the 38,000 lbs.; it was part of the 75,000 lbs.

1426. And that was rejected without examination?—We wrote to the comptroller to say that this being part of the 75,000 lbs. we firmly believed it was the same sort, and that we should reject it without even looking at it; and they sent down to say that they approved of our proposition.

1427. It was in that May also that a general survey was ordered of Mr. Goldner's meats?—I think it was in May, shortly after; it was ordered on the report that we made on the condition of the meat; the Government immediately ordered a special survey.

1428. Dr. M'Kecknie was then associated with you?—Dr. M'Kecknie was associated with us, but not at that time.

1429. The result of that survey was the rejection of the whole of Mr. Goldner's meats in store?—Yes, on that survey there were two pursers and a master, and two surveyors; it was ordered by the Commander-in-chief in the harbour; they came and surveyed it, and then the whole of the meat that we had then in store of Mr. Goldner's was condemned as unfit for Her Majesty's service.

1430. Mr. Goldner was required to remove it?—Mr. Goldner was required to remove it, and a person came down of the name of Cavaliero.

1431. What did he do?—The whole of the canisters went through his hands; he was there, I think, four or five days; he took every canister into his hand, and he shook them, and what appeared to be in a liquid state, convex, at either end, or at all defective, it was sufficient to condemn the canister: he passed every one through his hands, and about 2,000 he took away with him, and the others he left in the store, but he said the others were in such a state, that although they were not putrefied they would not keep long, but still he would not remove any more than the 2,000, because those he considered not safe even to remain in store.

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1432. Do you remember the exact number he removed?—About 2,000.

1433. Do you know what became of them?—I do not know; he took them away from us; we packed them in casks for him.

1434. How did he take them away?—He took them away by railway from Gosport.

1435. Do you know whether they were put on board trucks to go to London?—I do not know; we took no notice of them after they left our gates.

1436. You know nothing of them after their leaving the yard?—I am almost certain that they went by railway from Gosport; they were not shipped in any vessel, because if they had been he would have asked to have had the vessel alongside the wharf to do it.

1437. Were the 2,000 canisters taken away previously to the order from the admiral to survey the whole, or after that?—After.

1438. After the whole quantity had been condemned and rejected?—After it had been condemed and rejected.

1439. And he refused to take away more than 2,000 canisters, which you suppose went away by railway?—Yes.

1440. From that period there has been no survey of meats delivered by the contractor in your yard?—None whatever. Out of upwards of 3,000,000 lbs. that has been supplied, only 50,000 were supplied to Clarence Yard under contract direct.

1441. Were you summoned in August last to appear before the magistrates to answer a complaint with respect to the state of your stores?—No, Sir Edward Parry and the storekeeper were summoned.

1442. You are aware of it?—I am.

1443. Was the preserved meat in those stores at that time very offensive?—The greater part of the canisters were very offensive indeed; we were obliged to remove them from the upper store to the lower store where there was more air.

1444. Was it a vaulted store?—No, on a level with the wharf, but the front of it had windows, so that we could give it air, but there was a very unpleasant smell.

1445. Did it occasion annoyance ever after it was moved in that way?—It caused annoyance when you got near that store.

1446. Did you see the summons that was sent to the storekeeper?—No, I did not.

1447. When did the next considerable survey of these stores take place; when you were ordered to open the whole of the

the canisters?—That must have been about the end of the year; we were ordered to open every canister and to report what was good, and to condemn the bad to be thrown away.

1448. That was during the winter?—It was.

1449. Up to that time, the meats you had removed from the upper store into the lower, remained in the same position?—They did.

1450. Was the survey upon the last occasion, when you opened all the canisters, conducted in the lower store?—It was.

1451. What time did that occupy?—I think we must have been at it 14 or 15 days; I know we were at it two or three days, and then we left off on other duties; the surgeon could not always attend, and in fact at times we thought it proper to leave off for a day, because the smell of the meat was so bad that we could not bear it.

1452. How many hours in the day did this survey occupy?—We commenced at ten o'clock and left off about half-past two, we went on without intermission during that time.

1453. Was this a very offensive duty?—At times it was; some canisters were very offensive, but then, of course, we passed them away immediately, and then the stench went off.

1454. About what quantity was then surveyed?—Altogether our survey took in 53,857 lbs. in 6,916 canisters.

1455. Out of that quantity, how much was found serviceable?—About 1,200 canisters, or about 9,258 lbs.

1456. You have described the appearance of the meat when you examined it upon the reception of the 75,000 lbs., was the appearance of this meat of the same character?—Some of it was; I think that the greater part of this meat that we surveyed on the general survey with Dr. Mc'Kecknie, and the officers of the yard, was much the same; but it had no date, nothing but the plain label upon it. We knew it was Goldner's meat, but it might have been five or six, or even 10 years in the canisters for anything that we knew; but what part of it was good was in beautiful condition; nothing could be better; you cut down into it the same as you would cut into a round of beef.

1457. Was that good meat in some of the canisters which appeared to be of the most ancient date?—In some of ancient date the meat was very good indeed.

1458. Mr. *Miles.*] Comparing the canisters of ancient date with those recently supplied, was the meat of a very different description?—In some instances it was of a better

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description, I think decidedly of a better description than what we surveyed in April 1851, part of that 75,000 lbs.

1459. That meat supplied in April 1851 was under the contract of May 1850?—It was.

1460. *Chairman.*] Are you aware that the labels were only adopted in 1850?—Yes.

1461. Previously to that the meats had not been labelled?—Except the paper label, and on some of them there were directions for use.

1462. Therefore all the meat that was not labelled had probably been delivered into store, and had been served out to ships previously to 1850?—It might have been; a great quantity of the meat that we surveyed upon the last survey had been received into store from different ships, and some of it had been on foreign stations.

1463. Mr. *Yorke.*] You will have been six years in the Clarence Yard in July next?—Yes.

1464. Some of this meat which you have described as being good, but of the date of which you know nothing, came to you from different ships during the time you were there?—Yes.

1465. Did that old meat come to you from ships, or was it delivered to you from any other yard?—It must either have come from ships or from Deptford; we did not receive it from the contractor.

1466. Mr. *Yorke.*] How was it that you did not know yourself from whom you received it, and when you received it; have you no ticket or paper which would enable you to say, "I have received such and such meats from Deptford Yard, such and such meats from such another yard, and such and such from certain ships"?—As master attendant I had nothing to do with it; I kept no account when the canisters were received; it entirely rested with the storekeeper.

1467. *Chairman.*] You knew the contractor?—Yes, because the name is on the label.

1468. Admiral *Bowles.*] Would not the storekeeper be able to give an account of the ships from which it was received, and whether it came from Deptford Yard, or anywhere else?—Certainly.

1469. Lord *C. Hamilton.*] Do you think it probable that much of that meat that was condemned was under the old contract, and might have exceeded five years in date?—I have no doubt of it; some of it was very old meat; in fact, it must have been prior to 1850, because I had the dates of it.

1470. I asked Mr. Ede, the assistant storekeeper, that very question, whether it was open to possibility that the condemned

demned meats belonged to the old contract, where the five years might have elapsed; his reply was that it was open to possibility, although it was not probable, and that if the different accounts were looked to, he thought it would appear that it was not so far back as that?—Perhaps not so far back as that; but when we receive returned meats we examine one or two canisters, and if it is good we pass the whole. If the canister is the least convex, or if it is rubbed, we condemn it immediately.

1470*. The Committee understand that when meat is sent into store from a ship, it is kept separate, and that you do not mix meat of different dates, and supplied under different contracts?—We always keep them separate.

1471. Then would you not know to what contract each batch of meat belonged?—We should know the name of the contractor, but we should not know the age of the meat, nor how long it had been manufactured, because there was no date on those labels.

1472. I understood you to say, that when the canisters were very offensive, you did not look at the actual contents?—We turned nearly the whole of them out, except some that were very offensive.

1473. In those instances you could not give any evidence of the contents of those canisters as to whether or not they were originally right and proper, and by what process of decomposition they had become bad?—I should think, from the appearance of the whole of the canisters, that, with the exception of from eight to ten, in which we found things that were not very pleasant, they were all good and fit for use at one time.

1474. But still you did not examine many of them that were put away as very offensive, which might have contained improper materials?—There were very few that we did not examine, and we found that every one which we did examine, except about nine to ten, must have been at one time good and fit for use.

1475. With respect to the examination which took place in May 1851, when Goldner's agent took away the 2,000 odd canisters, do you remember whether you requested him to take away the whole, and he refused to do so?—We did; I think the request came from the Board; I know he was desired to do so, and he refused.

1476. Mr. *Miles.*] Can you tell what period elapsed between the complaints being made of the offensive state of the stores before

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before the magistrates, and the order for the special examination of the meat?—Three months.

1477. For the fresh supply of meat to the Navy, do you slaughter in the victualling yard?—We do for the fresh beef.

1478. About what number of animals do you kill in a week?—That entirely depends upon the number of seamen we have to victual, but we have killed as many as from 60 to 70 in a week since I have been in the Clarence Yard.

1479. How many butchers do you employ?—We do not employ the butchers; the contractor does that.

1480. Then the contractor brings the meat into your yard, and kills the meat there?—The bullocks are driven in alive into a pen, and a man who is stationed at the slaughter-house reports them to me, and also to the storekeeper.

1481. Previously to their being slaughtered do you inspect those bullocks?—Before they are slaughtered.

1482. So that you have the power of turning out any inferior meat from those pens?—Decidedly; and we also fine the contractor two guineas on every bullock he brings in that is not according to the contract.

1483. Do not you think that is a great security to the Navy, that everything that is supplied shall be of the best material?—Certainly.

1484. Have you turned your attention at all, supposing these supplies of preserved meats are still continued, to the question of making these preserved meats in your stores?—I am decidedly of opinion that the Government ought to manufacture their own preserved meat.

1485. Have you ever turned your attention to the question of what would be the additional expense in your yard to which it would put the Government, with the different appliances which you have now?—We should have to prepare a place to do it in.

1486. Independently of the building, what would be the expense for the superintendence and the persons necessary to manufacture the meats?—The contractor may do it a little cheaper; but we ought to do it within a very trifling sum of the same expense, and it would be a great assurance to the Government to know that it was done by their own officers, and under their own eye. They would get their own bullocks, and put in whatever meat they wished; no offal could go in, nor anything of the kind; and then, of course, you have your own officers to blame, if they do not do their duty properly.

1487. Having considered the subject, do you think there would

would be any difficulty in the way of making your own preserved meats?—I think no difficulty, provided we had a responsible person who properly understood it.

1488. *Chairman.*] That would ensure your having healthy bullocks slaughtered, and that the preserved meat should be made of the best parts of the animal?—No doubt.

1489. Have you ever considered what could be done with the parts of the animal which were not the prime parts?—You could not issue that as fresh beef to the ships, but we should always have people round about the neighbourhood who would be very glad to contract with us for those parts.

1490. Could those parts be turned to the purpose of making gravies and things of that sort which are used in the service?—That might be done; I could not myself enter fully into the way of manufacturing the preserved meats. I should like very much to be better informed upon it, but it is probable that those parts that you would not put into the canister may become by boiling down gravy, or they may make a gelatine to fill up the cavities of the canister. Whenever the gelatine is good, it preserves the meat.

1491. Mr. *Miles.*] In case it was determined by the Admiralty to make their own preserved meats, you would still have, as you have now, a contractor to supply those bullocks, and drive them into the pen to be inspected. Do you take all the parts of the bullock now?—Only the four quarters.

1492. There would be no difficulty in making a contract with the contractor to take what parts you wanted?—None whatever. I should wish to observe, that when the bullocks are driven into the pen, although we pass a bullock which may look well when it is alive, after it is hung up for 24 hours in the slaughter-house, the master attendant and the storekeeper inspect every beast as it hangs up dead.

1493. So that it undergoes a double examination?—Yes.

1494. Mr. *Yorke.*] And that is in point of fact the material examination?—Yes; it is cut up and the suet is cut out and used for the service, and then the four quarters are taken, and the tongue. The Government has the tongues for nothing, which are supplied to the admirals and captains of ships.

1495. Admiral *Stewart.*] Do you think it desirable to furnish preserved meat as part of the rations to the seamen of the fleet?—I do; if you can get it good and serviceable, my clear opinion is that it is desirable. But then the preserved meat must be of good quality.

1496. You know that preserved meat has been issued on certain

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certain days in proportion to the salt meat. Do you think it desirable to continue that practice if the meat can be well preserved?—Decidedly, I am of that opinion; I think it very beneficial to the Navy.

1497. How long have you been in the service?—I have been in the service 25 years, and I have served 19 years afloat as master of a ship.

1498. What is your opinion of the present scale of quality of the provisions of all kinds issued to the Navy. Are they better or worse than formerly?—They are better decidedly than when I first went to sea; there is no doubt about that.

1499. Admiral *Bowles.*] How long have you had an opportunity of seeing preserved meats, both while they were used as medical comforts, and subsequently when they have been issued as articles of provision?—I have not been in a ship at sea where they have been generally used.

1500. You are aware that they have been used as medical comforts for many years?—Yes.

1501. At that time did any complaints occur with them?—I never remember one complaint.

1502. It is only within the last two or three years since they have been packed in larger canisters, and the meat itself has been in larger pieces, that these complaints have occurred?—Yes; I think it ought never to be in larger canisters than 6 lbs. I think that has been one great reason of the failure, packing it in too large canisters; from their heavy weight rubbing one against another, with any friction the solder will give way.

1503. Your opinion is, that in future we should prepare our own preserved meats in the victualling yards, and that we should pack them in smaller cases?—Yes, nothing more than 6 lbs.

1504. Mr. *Yorke.*] Have you any suggestion to make about the canisters?—I think the stouter they make the canisters the better. If it costs more expense, it would be better to have a good canister.

1505. Admiral *Bowles.*] With those precautions do you think that there would not be the least difficulty in issuing meat in the way adopted in 1846 as an article of provisions?—Certainly not.

1506. Mr. *Yorke.*] Do you think that the introduction of any portion of salt whatever has a tendency to destroy the tin?—I think so.

1507. Can you say whether any of those provisions which were condemned by you after examination contained any portion

tion of salt in them?—No, I never detected any salt. In some of them, when they were opened, the lid was turned quite black.

1508. Has your attention ever been directed to the question, whether meat put up in an imperfect state is likely to produce this corruption in the canister even without air being introduced into it?—I think if the meat is put in in an imperfect state it would be very liable to decompose.

1509. Supposing it is put up too hot, or with anything like corruption commencing in the animal, so that the meat is diseased, what will be the effect?—Diseased meat, I should certainly say, would spoil the whole. Decomposition, in the course of time, must take place.

1510. Does it not require in this sort of delicate preparation, that the meat itself should be of the soundest and best quality?—No doubt of it; it must be the best of the sort, with no defect whatever in the animal.

1511. I am informed that corruption generally takes place, in an animal at all diseased, close to the bone, and not upon the surface; do you know whether that is the case?—I think it is the case. I can give an instance of that even in our examination of fresh beef. We had passed a bullock, as fine-looking a bullock as ever you saw; it was driven into the slaughter-house and slaughtered. It was quartered and hung up, and one quarter was sent out for one of Her Majesty's ships in as fine order as possible. But when they raised the shoulder to cut it up for the ship's company, under the shoulder-blade there was a small defect, a bloody substance; something had fallen upon the animal. Of course the meat was returned to us, and the contractor gave us good meat in lieu of it. It might have been passed by any officer, however strict, without cutting the quarter up.

1512. I am told that when it is passing through the curing process, which goes on before it is put into the canister, frequently the surface of this meat has been perfectly good, but that there is a germ of corruption in the under part of it nearest the bone; do you know whether that is so or not?—I have not experience enough to know, but I think it is very probable.

1513. The result is, that when it is put in with this germ of corruption, the whole canister will go off in this way, even when it is hermetically sealed?—I have no doubt of it.

1514. Supposing that to be so, is it likely that this matter would be more strictly guarded against if the Government prepared the meats in their own establishments?—I think that

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that the thing would be carried on much better by the Government, if the whole responsibility were left to the officers to cure your own meat.

1515. Mr. *Fordyce.*] Previously to the late complaints and condemnations of preserved meats, did they not appear to give pretty general satisfaction in the Navy?—Being stationed at Clarence Yard, I cannot know what happens on board the ships; I have not been in the habit of hearing the results; when they returned the preserved meats to us, we have always received them in store, but no complaints have come to us; whatever complaints they have afloat would not come to us.

1516. Do you know what precautions are taken to prevent meats that are bad being issued?—We hold a general survey once a month, by order of the Admiralty, on all preserved meats returned into store.

1517. Are meats issued to ships specially surveyed before they are taken on board?—That rests with the officers when they are first received; if a certain quantity of preserved meats are sent to Deptford and received there; a certain quantity may be sent to us to issue to other ships; we do not survey those without a special order.

1518. If you are victualling a ship, and sending on board preserved meats, is there any survey held upon those before they are sent on board?—No, we have received them as good; of course, if we knew them to be bad, we should not send them. By a recent order every canister is inspected by the officers before being supplied to ships, and if there be any appearance of convexity, or other defect, such canisters are not issued.

1519. In the event of having a manufactory in the yard for preserved meats, how would you get a supply of canisters?—I suppose we must contract for tin canisters to be made; you might have tin-men in the yard; you need not go to a contractor for that; if it was wished we might establish a tin-shop in the yard, and get them made there.

1520. You would not have much difficulty in that?—None whatever.

1521. What became of the meats that were left by Cavaliero; were they thrown away?—That which was bad was thrown away in deep water at Spithead; the good was distributed to the poor of the parish; some was sent to the officer of marines, to be distributed amongst them; also to the superintendent of the dockyard, to give to some of the poor of the dockyard. Sir Edward Parry sent a certain quantity round to the clergymen of the different parishes for distribution; in fact,

fact, every day after we had finished our survey of the condemned meat, whatever was found good was allotted so much for each gentleman who wished to distribute it; and I myself issued some to the poor men and families of the yard, under the directions of Sir Edward Parry.

1522. When you were examining those canisters, did Cavaliero open any of them himself?—He would say, "I should like to have that opened;" I should think he opened two or three, but we always found it bad when he said so. Whenever we found a canister the least convex it was sure to be bad; but sometimes he would be a little doubtful, and shake the canister, and after shaking the canister he would put it away as bad.

1523. The only sure way of knowing whether they are good or bad is by opening them?—No doubt of it.

1524. You only received Hogarth's and Goldner's preserved meats at Portsmouth?—The only contract we have received was from Goldner; whatever we have received from Hogarth has been from Deptford; it was received at Deptford first.

1525. Have many of Hogarth's meats been condemned at Portsmouth?—We have had a few lately, not many.

1526. Have any improper substances been found in them?—No improper substances; in some instances the canister was a little convex, but not enough to condemn it without opening it; in fact, in some instances we smelt it, but not so bad as the others.

1527. There have been very few of Hogarth's condemned?—Very few; I should say not above 40 or 50 canisters. Will the Committee allow me to make one observation with regard to the large canisters; there are 12 lb. canisters and 9 lb. and 6 lb. Now when Goldner sent in his meats, they came down to us in immense hogsheads of those large canisters; of course they are rolled about, one over the other, and the heavy weight of those canisters would cause them to rub one against the other, which would injure the canisters; and if those canisters were shipped without being repacked, they might become bad, not from the badness of the meat, but from the canisters being rubbed in that way. This is a matter that occurred to me, and I wrote to the superintendent to have it packed in square cases; and there was an order shortly afterwards given that they were to pack them all in cases. I went to the dock-yard, and got what they call single slab, and it is done by the labourers at the yard, not mechanics, and it costs so little, that the pursers now burn the cases after they unpack the meats. They have got the size exactly, and it is a very trifling expense;

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expense; it is more convenient for the stowage in the hold, particularly if they are put in 6 lb. canisters; it is better and more convenient in every way than putting them into casks.

1528. That plan has been adopted at your suggestion?—Yes, there is an order now from the comptroller of victualling that they shall pack them all in cases.

1529. Admiral *Stewart.*] Was there not sawdust put in the sugar hogsheads to prevent the friction of the canisters?—It was chiefly straw; I think there might have been some with sawdust, but they were chiefly packed with straw.

1530. If in the delivery of preserved meats for ships' use from the Clarence Yard, any canister was observed to be defective or doubtful, should you keep it back?—Decidedly; if we had the slightest doubt about a canister we should not ship it, as stated in answer to Question 1518.

1531. Lord *C. Hamilton.*] But still you do not examine them before you ship them?—We could not examine them, if we did we must open the canisters; of course we look at every canister. Suppose we had a cask to unpack, and we had to put them into cases, certainly the foreman of the store would see then if there was any defect in the canister, and if there was he would report it immediately; but when I said that we do not examine them, I meant that we do not open them.

1532. Are there any regulations with respect to the stowage on board ship of preserved meats?—No particular regulations.

1533. Mr. *Gwyn.*] How are they sent on board ship?—In the boxes now, so that they never turn them up.

1534. Do they remain till they are taken out of the box to be used as they are wanted?—Yes.

1535. Mr. *Fordyce.*] How are they packed in the box?—The box is made to fit the canisters, so that they go in quite close; the case is made on purpose, of a particular size; if you want to put in 12 canisters, the box is made for the purpose, and it fits in as tightly as possible.

Alexander M'Kecknie, M. D., called in; and Examined.

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1536. *Chairman.*] WHAT situation do you hold at Haslar Hospital?—I am Surgeon and Medical Storekeeper.

1537. You have not usually attended surveys upon meats in Her Majesty's stores?—Not till lately.

1538. When were you first ordered to assist at those surveys?—I was on one last May, but there were only one or two

two canisters opened; the large survey that I was upon commenced on the 30th of December; Sir Edward Parry ordered me to attend.

1539. In May last you were also present at an examination of some meats?—In May I was present at an examination of two or three canisters.

1540. What was the result of the examination in May?—There were very few opened, but there were some of them good, and one large canister was very bad.

1541. Do you recollect what the weight of that canister was?—That canister, I think, was 32 lbs. weight.

1542. Was that a tin canister?—A tin canister.

1543. At the examination in May did you find any improper or unusual substances?—The only thing that was found was a heart, which I believe was not according to the contract, but it was good.

1544. Upon the finding of this heart was the survey discontinued?—A person was there from the contractor, and he was shown that, and he was told that that was not according to the contract, but there were no more opened at that time.

1545. The next survey you attended was in December last?—The 30th of December last.

1546. That continued for many days?—It continued, I think, 14 or 15 days, till about the 30th of January; we did not survey every day regularly; there was a day intervened occasionally.

1547. Upon that occasion every canister was opened?—Every canister was opened.

1548. What appearance did the meat present upon that occasion?—It was very various; in a great many canisters the contents were quite putrid; others were good; they were various; there were upwards of 6,000 canisters opened.

1549. Were they of all sizes, and did they appear to be of very various dates?—I was not informed exactly of the dates; I do not know when they were received into Clarence Yard; some of them had been received into Clarence Yard from the contractor, and others had been returned from ships.

1550. Were the appearances of the meat, upon that occasion, the same as upon the inspection of the few canisters which you opened in May?—No, a great many of them were much worse.

1551. What was the general appearance of the meat; was it in large pieces or in small?—Some of it in large pieces,

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others in small. In a great many of them the meat was in small pieces of fat and lean, as if they had been taken out and squeezed together, and surrounded by a piece of the skirt or diaphragm.

1552. Did the meat appear to have undergone a good deal of cooking or boiling?—Some of it did; one of the persons present, Mr. Hogarth's foreman, who was at the subsequent survey, said that the reason of the meat becoming bad was, that it was not sufficiently dressed; but, in my opinion, it appeared to be too much dressed; that was at a subsequent survey, in February.

1553. This remark of Mr. Hogarth's man applies to a later survey?—To another survey.

1554. Was that survey on some meats returned from on board ship?—Yes; some, both of Hogarth's and Goldner's; some of it was returned from the "Gorgon" and the "Helena."

1555. Have you attended all the surveys since that one?—I have attended all the surveys since the 30th of December.

1556. Were many of the canisters upon the general survey in such a state of decomposition that you could not tell what the substance was?—There were a good many; there were a good many that we did not examine, the smell was too strong, but all that we could we examined.

1557. Wherever it was possible to institute an examination it was done?—Every one.

1558. What substances did you find in any of the canisters?—We found heart, and tongue, and kidneys, and occasionally a portion of the pancreas, or sweetbread, and several times a little liver, but not very often; heart, tongue, kidneys, tendon, and ligament were the most prominent foreign articles; in 12 cases there was intestine found; in 12 out of upwards of 6,000 canisters.

1559. Were other parts found besides intestine?—There were the cheeks of bullocks, and in about nine cases there was excrement in the intestine.

1560. Was this in those meats which appeared to have been pressed together in the way you have described?—No, not particularly in those.

1561. Have you turned your attention at all, since this matter has been before you, to the consideration of any superior mode that might be adopted with regard to the preservation of meat for the use of the Navy?—Not particularly so; on board ships I have had preserved meats when I have been out with convicts, but I paid no particular attention to them;

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them; but on the survey at the Clarence Yard, the foreman of Mr. Hogarth was present, and he said that whenever there was the smallest particle of blood put in with the meat, or if the meat was not wholly dressed, decomposition was sure to take place.

1562. As a surgeon, would you say that that opinion of his was likely to be correct?—He appears to have had it from experience.

1563. You have been in charge of convicts on one or two occasions?—Twice.

1564. On those occasions was part of the provision on board those convict ships preserved meats?—Not preserved meat as provisions, but I was allowed preserved meat as comforts for the sick, which I always found to answer well.

1565. You found the use of it conducive to the health of those convicts?—Yes.

1566. Were these meats usually of a good description?—I never condemned any; they were always used.

1567. They always appeared to you to be fit for use?—Always.

1568. In what sized canisters were those, generally?—Some of them were the 4 lb. canisters.

1569. As small as that?—Yes, and 6 lbs.

1570. Were they supplied out of the Government stores, or from the contractor?—They were supplied from the Government stores at Deptford.

1571. And supplied as medical comforts?—Yes.

1572. You do not recollect on any occasion finding those meats bad?—I never found one bad.

1573. How long had those medical comforts been on board ship before they were issued for the use of the men?—The first time I left England with the chartist Frost in 1840, at the end of February, and I arrived in Van Diemen's Land in about four or five months, and they were good to the last. In the next year I left England in April, and I arrived in August, and they were good all the time, but when they had been received in store I do not know.

1574. Mr. *Miles*.] When was your second voyage with convicts undertaken?—In 1841.

1575. You do not know by whom those medical comforts were supplied?—No.

1576. But they invariably proved good when they were used?—Yes; when I had any threatening of scurvy I used always to stop the salt provisions, and to give the prisoners

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wine and preserved meat made into soup, and I always found it do them a great deal of good.

1577. Had you likewise some soup and bouilli?—Yes, it was always in that form, and I had it mixed up with rice on board.

1578. But there is another way of sending out soup and bouilli by itself?—Yes, but that was not adopted in the Navy; at that time it was only given for the sick; it was not adopted as an article of diet; what was given at that time was soup and bouilli, not so solid as the present.

1579. *Chairman.*] The medical comforts are soup and bouilli?—Yes, soup and bouilli, both beef and mutton.

1580. Mr. *Miles.*] Your observation as to those did not refer to preserved meats; preserved meats had not then been issued to the Navy?—No, the preserved meats were not issued to the Navy, they were issued in charge of the purser; the surgeon drew them from him, and he was only allowed to give a man four ounces a day if he was sick.

1581. Have you been afloat since these preserved meats of Goldner's have been issued?—No, I have not.

1582. Did you examine many of the cases, so as to be able to determine whether it was from the way in which the meat had been put up, or whether it was from the admission of air into the canister, that the decomposition had taken place?—The canisters appeared, generally speaking, to be very good and strong; but as I have already stated, Hogarth's foreman said that if any particle of blood was left in, or any particle of meat was not exactly dressed, it would cause decomposition in the whole of the meat.

1583. Have you ever been present at any of the manufactories at which these preserved meats are made?—No.

1584. Does it strike you that for the purpose of avoiding decomposition the air must be entirely expelled?—Certainly.

1585. Then if the slightest particle of air is left, decomposition would of course ensue?—Yes; I may mention that in some cases of ox tail there was a very strong covering of gelatine over the ox tail, and those canisters were in a high state of preservation from the air being prevented getting at the ox tail.

1586. Did you observe that the substance which we may call "gravy" was very different in different cases, as far as gravy went?—Yes, it was different in different cases, and it appeared as if it had been filled up with blood.

1587. When it appeared as if it had been filled up with blood, was it thin, or had it formed gelatine?—No, it was rather thin gelatine; more jelly than gelatine.

1588. Are

1588. Are the Committee to understand that the thicker the gelatine was, the more perfect the meat was found?—Yes, as in those cases of ox tail.

1589. During the time that you were present at the special examination when so many cases of the preserved meats were examined, was the stench which was produced by keeping those meats in store such as to affect the neighbourhood immediately in contiguity to them?—I do not think so; in some of the canisters the smell emitted was very strong, but in the canisters unopened it was not sufficient to have that effect.

1590. But we have understood that the canisters were removed from the upper part of the store to the lower part, so as to admit more air to the canisters, and that that was done to meet the complaints which had been made by the town authorities?—I know that there was some complaint, but I do not know the particulars of it.

1591. Which did you first examine?—We first examined the canisters in the lower storey, and then some in the upper storey, and afterwards they were removed down, because the lower storey was more airy.

1592. Was the lower storey offensive when you went into it, before the opening of the meats?—Not on the first occasion.

1593. Was the upper storey offensive?—Not on the first occasion; not on going into the store before they were opened; but when the canisters were opened in the upper storey, some of them were very bad, and they were obliged to be taken out of the store without being looked at at all, and it was proposed at the next examination to go below, where the store was more airy and more convenient.

1594. *Chairman.*] You said that the gelatine round the sides of this meat appeared to have been boiled up with blood; would not that cause it to appear of a dark colour?—It was of a darkish red colour.

1595. Would it not be streaky and dark?—Not streaky, but rather granular.

1596. Mr. *Yorke.*] Would that indicate that sufficient care had not been taken in the preparation of those meats?—I do not think the bullocks had been properly bled when they were slaughtered.

1597. Would the meat being put up in a state not quite cold produce internal corruption even if the air were perfectly excluded?—I cannot say.

1598. Has your attention ever been turned medically towards any way of remedying this?—No, never.

1599. You have no suggestion to offer to the Committee

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as to any means by which this might be remedied?—No; the only suggestion that I can make is, that there should be some person appointed to inspect the meat, or else that the Government should take into their own hands the preparation of it.

1600. How far would the appointment of inspectors to look over the beef which had been contracted for be available?—I should think that inspection would answer the purpose; to have one person as inspector when the meat is put up into the canisters.

1601. Would it not have the effect of invalidating the contract; would it not shift the responsibility from the contractor?—Yes; but it would prevent anything being put into the canisters which was not in the contract.

1602. Is inspection the only thing which you think necessary?—That is one essential thing. Another thing would be to see that the meat was properly dressed, and the air properly expelled.

1603. Do you think it would be a good thing, when you bind a man by contract under certain penalties to do a thing, to let anybody interfere with him; would not that be altogether taking out of the contractor's hands the whole responsibility of the performance of the contract?—It might; but in some of those cases I suppose that if there had been an inspector those bad parts of the bullock would not have been put into the canister.

1604. Assuming it to be a good plan to put an inspector over the contractor, would that be as good a plan as the Government taking into their own hands the cure of preserved meats?—I should think it would be better for the Government to take it into their own hands.

1605. Did it ever occur to you to consider what the expense of such an operation might be?—No, it never has occurred to me; but I think at such an establishment as the Clarence Yard it could not be very great.

1606. Why particularly at the Clarence Yard?—I know more of the Clarence Yard than I do of other stores. There appear to be buildings there that would be suitable for the purpose.

1607. There are already some facilities there for carrying on such a work?—Yes. Probably any other yard would answer equally well which had a slaughter-house.

1608. *Chairman.*] Do they manufacture pemmican in the Clarence Yard?—Yes.

1609. Have you ever seen it in operation?—I have seen pemmican

pemmican both when it was partly made and when it was made.

1610. Are the beasts from which it is made slaughtered in the yard?—No, I believe the meat is generally bought in London.

1611. Lord *C. Hamilton.*] I understood you say that your impression was, that some of this meat had not been properly bled when it was slaughtered. Supposing that the person killing the animal wanted to get as much tallow as he could from the animal, would the retaining the blood, and not bleeding the animal properly, produce any difference in the result obtained; would he get more tallow?—No, I do not think he would get more tallow.

1612. Supposing that to be his object in slaughtering the beast?—No, I do not think he would get more tallow.

1613. Your general impression is, that the failure of the preserved meat has arisen from defects in the process, not from injuries received by the canisters afterwards?—I do not think it was from injuries to the canisters, generally speaking.

1614. But from a defect in the original process?—The meat had been good, but it had not been properly prepared. Many canisters contained good meat, and what was good was very good.

1615. Mr. *Fordyce.*] Are the medical men on board ship very favourable to the use of preserved meats for the use of the sick?—Yes, I think the medical men are favourable to their use for the sick; but when I served on board ship the quantity was very small; you were prohibited from giving more than four ounces a day. They were not used a great deal. The time when I used preserved meat was mostly on the coast of Africa. I was in a ship with the yellow fever on board, and we used a great deal of it there. The allowance was rather small, unless a man was very ill; then it was sufficient for him.

1616. Since that they have been supplied more liberally?—They have been more liberal.

1617. Is there any means of telling whether the meat is good or bad, except by opening the canisters?—I do not think there is. It has been stated that you can tell their being bad by the canister bulging out; that it becomes convex in the ends, and that those that are concave, like the top of a hat, are those that are good. Now, in thousands of cases of these preserved meats that we surveyed the cases were quite flat; they were not at all raised at the end. So that I

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do not think that is any criterion to go by. Another way of judging appears to be by shaking the cases.

1618. Is that an effectual way?—Those men who are connected with the business appeared, in many cases, to detect those cases that were bad, in that way, because if they get at all fluid it shakes, and if it is quite solid it is good; but I do not think that can be relied upon.

1619. What precautions are taken now to prevent the issue of preserved meat, which may be bad, to ships afloat?—I do not know any precautions that are taken. The whole of the meat in Goldner's contracts has been examined, so that there is no more of it issued at present. There was a survey upon some of Hogarth's meat which was extremely decomposed; and, as I mentioned, the foreman on that occasion stated, that that arose from some part having a little blood in it, and not being properly dressed; in that instance the jelly in that canister of Mr. Hogarth's had become quite fluid, whereas the meat in the centre of the case was quite sweet and sound.

1620. When you issue preserved meats to a ship, how do they make sure that they are good?—That is done from the Clarence Yard, with which I have nothing to do; I belong to Haslar Hospital.

1621. Did you generally, on board the convict ships, preserve good health?—Yes; in the first voyage I only lost one man.

1622. Out of how many?—Out of 211 when I left England. In the second voyage, I think, I lost four men and boys; then I had 250; but the first ship was very dry, and the second ship was wet, and we were exposed to a good deal of wet weather.

1623. You were supplied with provisions from Deptford Yard?—Yes.

1624. Do you attribute much of that good state of health to the excellence of the provisions?—I put into the Cape on both occasions because the scurvy made its appearance; we put in there to give the prisoners fresh provisions, but the preserved meat I considered of very great service when the scurvy broke out. I had been about 15 years before at sea, and I never saw a case of scurvy on board a man-of-war, although I had been six or eight months at a time on salt provisions.

1625. In this instance of the scurvy making its appearance, had you much preserved meat on board?—We had the usual quantity of medical comforts; I had a certain allowance for every hundred men.

1626. You would have been very glad of a more liberal supply?—

supply?—I had quite sufficient at the time; if I could have had more, I would have given the men more.

1627. Were the other provisions very good?—Very good.

1628. Nothing to complain of?—Nothing to complain of.

1629. Was the bread very good?—The bread was very good, and the beef, and pork, and flour, and the tea and cocoa; they had oatmeal for breakfast, which the prisoners did not like; they did not take it, and I stopped the oatmeal, and divided their cocoa and tea between the morning and the evening, which they preferred.

1630. But the provisions generally were very good?—Very good; I had no fault to find with them.

1631. Were there many complaints about the salt beef boiling away?—There were sometimes; it sometimes did boil away, and there was no allowance made for it; the only way was to make one of the men take a portion from a piece that contained most meat, and give it to those that contained most bone; there was a certain allowance for each man.

1632. But that did not happen very frequently?—Not very frequently.

1633. Admiral *Stewart.*] Do you know what was the cost of the medical comforts at that time per pound?—No, I do not.

1634. How long have you been in Her Majesty's service?—Twenty-eight years; I entered the service in 1824.

1635. Is it your opinion that it would be desirable to furnish preserved meat as part of the rations to the fleet, if it can be made to keep?—I think preserved meats are very excellent things, if they can be made to keep.

1636. What is your opinion of the present scale of quality of the provisions of all kinds issued to the Navy; is it better or worse than formerly?—It is better than formerly.

1637. What species of provisions do you think is most improved?—There is an increased quantity of meat of various kinds, and there is preserved meat also.

1638. Do you consider the bread better?—The bread is better.

1639. And the chocolate?—The chocolate is better also.

1640. And the peas?—Yes, the peas are better. In fact the provisions of the Navy are very good indeed.

1641. Is the tea considered an addition to the men's comforts?—It is a great addition.

1642. Do you think the supply of medicines to the Navy is sufficient?—I think so; the medicines have just undergone an

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an alteration; a number of new and valuable medicines have been given to the service.

1643. You would be sorry to give up the preserved meat as a medical comfort?—Yes, I should.

Edwin Augustus Smith, Esquire, called in; and Examined.

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1644. *Chairman.*] YOU are Paymaster and Purser of the "Arrogant" steam-frigate?—Yes.

1645. Have you been on board ever since that ship was commissioned?—Yes; I belonged to her for three years.

1646. Have you been on a foreign station any part of the time?—Yes; I have been in the Mediterranean and at Lisbon, and in the West Indies. We have just returned from the West Indies.

1647. When did you first sail on a foreign station?—In May 1849.

1648. From what port?—We left Spithead for Cork, and then came back again, and thence we went to Malta and back again. We then went to the Lisbon station, where we remained 18 months, and then came to England.

1649. Was it in the steam-frigate?—Yes.

1650. Commissioned at Portsmouth?—Yes.

1651. Who is the captain?—Captain Robert Spencer Robinson.

1652. In what way was the ship victualled on her leaving?—She was victualled with salt beef and pork, and a proportion of preserved meats, and potatoes and rice.

1653. What was the regulation at that time as to serving out preserved meat on board?—It was three-quarters of a pound to each man. It was issued every alternate day.

1654. And on the alternate days they had salt beef and salt pork?—Yes.

1655. That would amount, then, to two days in a week that they were on preserved meats?—Yes.

1656. Do you know from what contractor the preserved meats on board your frigate were obtained?—It was "S. G." The supply notes that we had had Goldner's mark upon them.

1657. Was the date of the contract marked upon them?—No; the marks were very seldom or the warranty on them at all.

1658. In what sized canisters were those meats?—8 ¼ lbs., and 10 ¼ lbs., and 32 lbs. We had, generally speaking, small canisters.

1659. Not

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1659. Not many 32 lb. canisters?—I do not exactly remember; if there were it was in the former part of the commission; latterly they were small canisters. We have had no large ones of 32 lbs. certainly, lately.

1660. Was the usual character of those preserved meats good?—When the meat was good, it was really very good; but a bad canister of meat was not eatable.

1661. The question was with regard to the usual character of the meat. Was it of that description which you thought was a good provision?—No.

1662. Was it popular with the men?—In one ship in which I served it was; in this ship they do not like it.

1663. How long ago was that?—That was, I think, in Her Majesty's ship "Curaçoa," on the south-east coast of Africa.

1664. When was that?—She was paid off in 1847. We had it only a short period; the men liked it; it was a new thing to them. In the "Arrogant" the men do not like it.

1665. Do you think that the character of that meat on board the "Curaçoa" was better than that which you had on board the "Arrogant"?—I think it was a little; I do not think we had so much condemned as we had in the "Arrogant," but I am not certain.

1666. Mr. *Yorke*.] Do you recollect the proportions, how much was good and how much was condemned on board the "Arrogant?"—Yes; we had been three years in commission, and the whole quantity condemned was about 1,600 lbs.

1667. Out of what quantity?—I cannot say the exact quantity which we had received on board at the time, but that was about the quantity we condemned; I suppose out of 30,000 lbs. or 40,000 lbs.

1668. Is this preserved meat issued daily to the crew when it is required?—Yes, it is issued in the morning about 11 o'clock every alternate day.

1669. Are condemnations of frequent occurrence?—They were at one time. But we had a survey on some preserved meats in Jamaica in November last; three commanders, three paymasters, and the deputy inspector of the hospital were on the survey. There were four casks of canisters of a different description from those issued by Goldner; they were of a different colour, and not ascertaining clearly whether the mark was "S. G.," or whether it was "S. C.," we gave this gentleman the benefit of the doubt, and we received them on board again, and we found them very good; in fact, not one pound of it was bad. I think it was about 1,200 lbs.; I believe it was Goldner's, but I could not say so. It was a different painted

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painted canister altogether from Goldner's; it was white instead of red.

1670. Goldner's canisters are all painted red?—Yes, those I have seen, and these were painted white.

1671. At the time of serving them out, were they immediately opened and examined?—Yes, they were opened then, and all that was good of course was consumed, and all that was bad the officers surveyed, and threw it into the sea. The stench was dreadful.

1672. Of course that would tend to make the issue of such meat for consumption on board ship not very popular?—Just so.

1673. This probably occurred two or three times a week with some of the canisters?—Yes; the quantity condemned averaged about one-tenth part of the quantity issued.

1674. Mr. *Miles*.] Do you mean that one in three was bad?—Not one canister out of three, but that on one day out of three there would be one or more canisters bad.

1675. Mr. *Yorke*.] You do not mean that the whole issue on one day in three would be bad?—No.

1676. Lord *C. Hamilton*.] You mean that one day in three you discovered some bad, but not all bad?—Not all bad; certainly not.

1677. *Chairman*.] What is the number of your ship's crew?—Four hundred and fifty men.

1678. Upon the size of the canisters of course depended the number of canisters issued for a day's consumption?—Yes, it depended upon the size, whether it was 32 lbs., or 8 lbs., or 10 lbs.; the consumption averaged about 300 lbs. a day.

1679. From 12 to 30 canisters a day?—Yes.

1680. Did you find the meat that was preserved in large canisters, or the meat that was preserved in small canisters the best?—There are various opinions about that: we have generally found in the "Arrogant" the small canisters the best.

1681. With regard to those 32 lb. canisters, was the meat good in them?—No.

1682. They were as often condemned as the small ones?—Just as often. Sometimes when they were opened, if it was good there was a sort of yellow tinge upon it; but it was not so bad that we were authorised to condemn. But there was a peculiar tinge on the meat and on the juice, and although it was not sufficiently bad to be condemned it was eaten.

1683. The usual quality of the meat was not a prime quality?—Certainly not.

1684. Did it appear to be put together in large pieces or in

in small pieces?—It was stringy meat-rags, with no nourishment in it. It is a great boon to sailors if it is good, and in some cases it was very good, in others very inferior.

1685. You have a high opinion of preserved meat as a benefit to the health and comfort of the sailors, provided it could be supplied good?—Certainly, it is a great boon to sailors.

1686. Did this meat appear to be very much cooked?—Yes, certainly.

1687. In your idea, too much cooked to be nutritious?—Yes; it appeared to me there was no nourishment in it; it was stringy, and had no nourishment in it.

1688. Did the fat appear to be quite taken off it?—Yes; there was fat in the canisters, but not attached to the meat.

1689. Did the fat appear to have been poured in in a liquid state?—I cannot say.

1690. Did you usually find a sort of layer of gelatine on the outside?—No; it is more water; there is no jelly. I have seen some very nice indeed, but those which we condemned at Jamaica were all weak gravy; but I have seen in those that were good a solid jelly.

1691. Those in the white canisters?—Yes; they were very good.

1692. And the jelly was of a solid character?—Yes; that was capital meat that we had on that occasion.

1693. Taking Goldner's red canisters generally, was the meat of a stringy nature put up in small pieces?—Only on some occasions; some canisters were very good indeed.

1694. Mr. *Miles.*] You were upon the West India station last year?—Yes, and this year; we left in February last.

1695. When did you arrive on the station?—On the 19th of October last year.

1696. Were there any complaints made relative to the quality of the meat in the ships on that station?—No; it was an understood thing that everybody thought the meats bad; everybody condemned them, because the stench was so great that it was dangerous to the health of the ship's company.

1697. Did it affect your store-room?—No; sometimes we have had some cases put down under the half deck, and a nasty smell has arisen from those; they have been opened and surveyed, and thrown into the sea at once.

1698. Did you make any particular observation relative to the canisters, as to whether there appeared to have been an admission of air into those that were bad?—Yes, we examined them very closely, but we never could discover anything like an

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an air hole, but on several occasions when we have opened those casks the canisters have been perfectly flat, from bad stowage, I imagine; and in consequence of their being flattened in this manner I think there must have been some hole made that was not perceptible.

1699. Did you ever try them by filling them with water?—No.

1700. During the time you were in the West Indies were you perfectly satisfied with your salt provisions?—Certainly.

1701. Did you perceive any particular shrinkage in the salt provisions?—Yes, a great deal of shrinkage.

1702. Have you any return of any vessel of which you were purser relative to the shrinkage?—Not here, but I have on board.

1703. Can you state at all the relative proportion of the shrinkage?—It varies; the shrinkage would be one day 48 lbs., another 46, and another 112, some of it has been so bad.

1704. Does not that arise generally from the age of the beef?—I should say so; it arises in consequence of the cook overboiling it, because they go on stewing and stewing, and it is in the copper some four hours perhaps, and when it is taken out it must have shrunk considerably.

1705. Has not the cook at present a privilege relative to the "slush," as it is called?—Yes, he has half of it.

1706. Do you think that a good plan?—I do not know; I have never given it a thought whether it was or not.

1707. Would not his having half of this slush naturally induce him to overboil the meat considerably that he may get an advantage by it?—He might do that, and I imagine that many men will do that.

1708. You have told us the shrinkage has been large; do you know at all the date of the issues of some of your provisions in salt meat?—Yes; the other day we were using provisions warranted in 1849.

1709. Had you none earlier than 1849?—No, none earlier.

1710. Have you observed that the older the meat was, the greater was the shrinkage?—Certainly.

1711. Was there much of the salt meat condemned?—We never had a particle of salt meat condemned, except on one occasion, when we had two barrels, one beef and one pork, and that was in consequence of the galley we had on board for making salt water into fresh; the tubes in going down to the lower part of the ship passed through some of the casks, and from the heat of the water passing through those tubes, the casks

casks began to swell, and all the juice ran out of the casks, and when we cleared the hold upon some occasion, we got the casks up, and found two casks, one beef and one pork, bad; it was sent off to Gibraltar to be condemned; but that was not in consequence of the badness of the meat, but in consequence of the juice having gone out of the casks.

1712. From your experience as purser, should you say that the salt provisions supplied to Her Majesty's ships are as good as can be?—Yes, the finest in the world, compared with other nations.

1713. Mr. *Fordyce.*] How is the preserved meat cooked?—It is put into the coppers, if the men like, in the canisters, and warmed up.

1714. Is it put among water?—Yes, in boiling water.

1715. Is there an allowance of potatoes issued?—Yes, preserved potato and of rice; the men may have either a quarter of a pound of potatoes, or a quarter of a pound of rice; it is optional.

1716. Is the potato generally a good article?—Yes; we had once or twice some little of it stale, but not so bad as to condemn it.

1717. With respect to the cook boiling away the meat so much for the sake of the slush, are there not certain precautions against that?—He is allowed half, I think, by the new regulations, and the other portion goes to the benefit of the ship.

1718. Is not he obliged to put the meat into the copper at a certain time, and not before a certain time?—Yes; it is steeped in the morning; I do not know what the hour is; it is generally issued about half-past 11; I should think three or four hours before.

1719. Does not he generally bring up a portion of the meat to the officer on watch to examine?—No; that is generally done in harbour, but not at sea; the pea soup is brought on the quarter deck, and the fresh soup, but not the meat.

1720. Then the officer on watch does not see whether the meat has been too much boiled away?—No; the lieutenant of the watch occasionally looks at it, but the second master always superintends this.

1721. Then it is under the oversight of an officer?—Certainly.

1722. The provisions, generally, are of a superior quality; the biscuit, flour, cocoa, and tea?—Very superior indeed; I should say there is no nation in the world that issues such provisions to the seamen as we do.

1723. Are

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1723. Are the salt provisions often old?—They must be, because they are sent occasionally, for instance, to Rio Janeiro, and no man-of-war, perhaps, goes there for six or eight months; the vessels that are there get fresh meat, consequently they do not require the salt, and so the salt meat remains in store a considerable time.

1724. The provisions are obliged to be issued in their turn of date?—Yes, when ships come in, of course they are issued in their turn.

1725. Lord *C. Hamilton.*] Is there any particular care used in stowing the preserved meats on board ship?—Yes, certainly.

1726. The least puncture or opening in the canister, caused by rough usage, destroys all hope of its being good?—Yes; but in the case I alluded to just now, with regard to their being flat, it could not be from bad usage, because they are hauled over the side of the ship, and stowed in the hold immediately. I should imagine that it is from bad stowing by the men in the Victualling Yard, pressing the canisters down in trying, perhaps, to put in an extra canister into the cask.

1727. We have had evidence that they roll the casks; would that be likely to injure them materially?—They roll them, and sometimes our men roll them down to the boat, but I should say that that would not damage them so as to flatten them.

1728. Of course the larger the canister and the greater the weight, the least accident is the more likely to injure it; but you do not think, from your experience, that much injury has been done in that way?—I think not.

1729. You say that there is often an appearance of water when the canister is opened; surely that is never the case unless the contents are decomposed?—It is not water, but weak gravy.

1730. You have been in the squadron that has been at Lisbon lately?—Yes.

1731. Can you say that generally the impression in the squadron with respect to those meats is favourable?—Certainly not favourable.

1732. Can you mention any particular vessel in which they are more or less in favour than in others?—I think the "Arethusa" made a special report upon them.

1733. With respect to the white canisters which you mentioned, you imagine that those came from Mr. Goldner?—Yes; I do not now believe them to be Goldner's, as A. C. is now marked on the supply note given to me.

1734. Were

1734. Were they all of a superior description?—They were all good; I will not say that they were superior, but we did not condemn one case; it was all excellent.

1735. Mr. *Fordyce.*] In making up your provisions, when you are ordered to sea, are you allowed to inspect the provisions which come on board?—You are allowed to do it if you like, but it would take an immense time to do it.

1736. With respect to the preserved meats, do you look at them?—Never.

1737. You do not see them before they come on board?—No. You know that there is a cask supposed to contain 196 lbs. or 220 lbs., and you give a receipt for that quantity, but you could not examine them; it would be impossible.

1738. You are not permitted to examine the provisions previously to receiving them?—Yes, we are allowed. I think the paymaster can do it if he thinks proper; but they come from the victualling yard, and they are always good, and there has never been any necessity for it; but if I fancied that any of the provisions were bad, of course I should request a survey upon them, and they would be opened. But I must have some reason for calling for a survey.

1739. Admiral *Stewart.*] In the case of the meat on board the "Arrogant," do you think that the dislike of the men to it arose from its having lost character by condemnations, or do you think that they disliked the article, however good it might be?—I do not know; I think that sailors are very odd men, and do it sometimes for the sake of a growl. I have heard them say, "This is a pinch-gut day," when it was preserved meats; they do not like it; I think they prefer the beef or pork.

1740. Do you think the seamen would like to have an issue of preserved meat, supposing it to be properly preserved, or that they would wish it to be done away with?—I do not know, because in one ship that I was in they liked it, and in the other ship they did not like it.

1741. You were understood to say that in the first ship there were no condemnations?—Yes, there were.

1742. But it was a better quality than in the last?—I do not know that it was; I did not look at it then to give an opinion upon it with any degree of certainty.

1743. How long have you been in the Navy?—Eighteen years.

1744. Was preserved meat used as a medical comfort when you were first in the Navy?—Yes, and on those occasions it

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was always capital; I was in a ship some years where we had preserved meats for the sick, and they were always good.

1745. It was in much smaller canisters, and a greater variety of meat?—Yes; it used to be mutton and beef.

1746. Do you happen to recollect what was the cost to the Government of the medical comforts?—No, I do not; I have no idea.

1747. Did the men of the "Arrogant" ever remonstrate against the preserved meat, and ask for salt meat in lieu?—Yes.

1748. You stated that you had preserved potatoes on board; were the condemnations of them great?—No, I do not recollect any condemnation of them.

1749. Do you think that they are a great comfort to the men?—Certainly.

1750. And ought to be continued?—Certainly; I think they are of great importance to the men when on salt-meat rations.

1751. *Chairman.*] Are other vegetables issued to the crew besides potatoes?—Not at sea; in harbour there are cabbages and turnips, and other vegetables.

1752. Admiral *Stewart.*] The preserved potato is a patented article?—Yes.

1753. Mr. *Yorke.*] Can you speak generally of the Navy from what you know, as to the unpopularity of these preserved meats?—No, I would not venture to say that.

1754. Can you speak with respect to the squadron in which you were?—Certainly; I can speak with respect to the Lisbon squadron.

1755. Speaking with respect to the Lisbon squadron, do you know what meats those were which they had?—I cannot say positively, but I imagine they were Goldner's. They were all received at the same time, and received from the same victualling yard.

1756. *Chairman.*] When were the preserved meats of which you have been speaking on board the "Arrogant" received on board?—At various times; we victualled perhaps every six weeks; we went to Gibraltar, and completed for 112 days, and we would do that perhaps every six weeks.

1757. On each of those occasions you received these preserved meats?—Yes, from the Gibraltar Victualling Yard.

1758. Were the meats which you had throughout the whole time that the "Arrogant" has been in commission of the same description?—Yes, of the same description.

1759. The preserved meats were usually of the description which you have mentioned?—Yes.

1760. And

1760. And throughout the whole of the three years' service those meats have not been popular on board the "Arrogant"?—I do not remember as to the first part of the commission; I cannot say what the opinion of the men was two years ago, because I did not seek it; but latterly they have not been popular.

1761. You stated that in a former ship, a year or two before, which you had been on board of, they were popular?—Yes, they were.

1762. Do you attribute their unpopularity in the "Arrogant" to what has occurred before the public with regard to these meats?—I will not say that; but I attribute the men liking them to their blockading 12 months in the River Plate, and it was a great relief to get these with their salt provisions; we were on salt provisions 12 or 13 months. In 1844 or 1845 the Government sent out these preserved meats, as we had a great deal of scurvy on board, and the men liked them, but whether it was from the quality of the meat, or merely from the change, I cannot say.

1763. Do you recollect what the quality of the meat was at that time?—I think it was about equal to what it is now.

1764. Small pieces tied together with string?—No, I never saw that.

1765. Admiral *Stewart.*] You have been 18 years in the service; what is your opinion of the present scale of quality of the provisions issued to the Navy; are they better or worse than they were formerly?—I think they are better than what they were when I first entered the service.

1766. There is a larger proportion of meat issued now?—Yes, a quarter of a pound in addition.

1767. Do you consider the bread better than it was 18 years ago?—It is so long since we have had any English bread that I cannot say. The bread which we had at Gibraltar was generally bread which had been returned from ships on foreign stations, and sent out to Gibraltar for consumption.

1768. Should you call it better than it was when you entered the service?—It is very good, but I do not think it is better.

1769. Do you consider the peas better?—No, I do not.

1770. Are the whole of the provisions of excellent quality?—The whole of them are excellent.

Martis, 30° die Martii, 1852.

MEMBERS PRESENT.

Sir William Jolliffe.	Mr. Miles.
Mr. Gwyn.	Lord Claude Hamilton.
Viscount Newport.	Admiral Stewart.
Mr. Yorke.	Mr. Fordyce.
Admiral Bowles.	Sir F. Baring.

SIR WILLIAM G. H. JOLLIFFE, BART. IN THE CHAIR.

James Selfe, Esq., called in; and Examined.

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1771. *Chairman.*] WHAT is the situation which you hold?—Ship's Husband to Mr. Green.

1772. He is a very large ship-owner?—Yes; we have nine-and-twenty vessels afloat now.

1773. Vessels of large size?—Some 1,400 tons.

1774. Have you the superintendence of the victualling of Mr. Green's ships?—Entirely, and have had for years.

1775. For how many years?—For 13 years; I came home from sea at that time; I was sailing to India previously to that for 17 voyages.

1776. What has been the principal mode in which you have been victualling the crews of those ships?—The vessels have been victualled principally with salt provisions; we purchase the best that can be got in the market, India beef and India pork; and latterly we have given our crews American beef in preference to Irish or English beef; we find it much superior.

1777. How long is it since you have used American beef?—Five or six years; and latterly, when American meat of such a quality as we purchase was not in the market, we have sent Irish beef; but our people do not like it so well; they complain of it; in fact, the Irish meat is not so good now as it was seven or eight years ago.

1778. Do you attribute the falling off in the quantity of the Irish provisions to the famine?—I think since the ports have been opened there has been a decided falling off in Irish beef and pork. I examined some yesterday, both beef and pork, but that was very good.

1779. Is

1779. Is the Irish pork equal to the American?—It is superior to the American for sea purposes.

1780. But, on the contrary, the American beef is superior to the Irish beef?—Yes.

1781. Does that continue up to this day?—Yes; we have had it go to India and back again; the old stores are all re-opened and inspected by me previously to the vessel going out again, and we find them very good.

1782. What use have you ever made of preserved meats for the victualling of your ships?—We send preserved meat for the use of the passengers, and occasionally for the use of the crew, in case of sickness, and also for the troops and emigrants; some years ago, since I have been home from sea, during the time that the inspector of the East India Company's ships was ill, I did his duty for 12 months, and I had occasion to inspect a large quantity of provisions, and, in some instances, I condemned a great many of them.

1783. That was an inspection which you carried on for the East India Company?—Yes.

1784. When was that?—I think it was about five or six years ago, previously to Captain Locke being appointed, during the time of Mr. Dimsdale; he was ill, and I did the duty for two years, off and on.

1785. Were those meats preserved for the troops going out?—Yes; they were given out once a week. The reason I had to condemn those meats was owing to a very large portion of vegetables being mixed with the meat; for instance, barley and carrots. I find that with preserved provisions it will not do to mix vegetable and animal food together; the acidity of the one, I think, spoils the other. I have known that in several instances. Our ships bring home troops frequently from India (there are some coming home now); in that case we are obliged to purchase provisions in India, and in many cases we have 50, and in some cases 100 canisters remaining; and I have been frequently obliged to condemn them all, being so bad that even pigs would not eat them.

1786. Were those meats procured in India?—Yes; but they were sent out from this country.

1787. Are you referring now to the inspection you made for the East India Company?—No; I refer to provisions that we had no means of inspecting, which we were obliged to purchase in India for the troops on the homeward voyage.

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1788. Those were English provisions, which had been sent out, and purchased in India for the troops on the homeward voyage?—Yes.

1789. Have you made a much larger use, of late years, of preserved meats, than you did formerly?—We have for the passengers. We have the very best meat we can get for the passengers, and we have scarcely had an instance of any of it spoiling; neither the fish, nor the mutton, nor the beef, nor the chicken, nor any other preserved meat, has spoilt.

1790. Do you contract for the supply of this meat?—No, we do not; sometimes we obtain the meat from Mr. Gamble and sometimes from Mr. Cooper; we have had some from Mr. Goldner, but not for the last three or four years.

1791. Your object is to get the best meat you can get, and the price is a secondary consideration?—Yes.

1792. And under those circumstances you hardly recollect a condemnation of meat?—Very seldom. Immediately on the return of a ship the stewards deliver me their expenditure books, and I go over the whole of their affairs, and I request them to give me all particulars as to the quality of the stores. I also request them to make a note of whatever occurs on the voyage as to the wines or the spirits or the meats, or anything else. We do not limit the tradesmen as to price, but we get the best meat we can procure. I inspected some very excellent beef the other day from Australia, and we have sent some out now in a ship which has recently left for India; it is the finest preserved meat that I have seen, and is very cheap; it is only $5\frac{1}{4}$ *d.* a lb., which we consider very cheap for a good article.

1793. Was that meat preserved by a person of the name of Dangar?—Yes. I have tried it in one ship. I opened half a dozen tins, and found them equally good.

1794. Was that preserved in large or in small pieces?—The tins I inspected were 4 lbs. tins; they have 6 lbs. and 8 lbs. tins, but we have the 4 lbs. tins for convenience.

1795. What was the appearance of the meat in those tins?—It was of the first quality, all solid meat and gelatine.

1796. And it had borne the voyage from Australia, and was in a perfectly good condition?—Yes, it was in perfect keeping.

1797. Do you know how long it had been preserved?—I think they told me that it had been preserved about 13 months.

1798. Viscount

1798. Viscount *Newport.*] Do I understand you to say that that is fresh preserved meat?—Yes, fresh preserved meat; they are obliged to eat salt with it

1799. *Chairman.*] How long have you known these preserved meats keep?—I have known them keep for three or four years; I have never had occasion to notice them after that time.

1800. But you have observed that those meats were quite good after three or four years?—Yes.

1801. Was this Australian meat very much cooked?—It was thoroughly cooked; about the same as any other description of meat is cooked.

1802. The meat has all the appearance of being thoroughly cooked?—Yes, it has; it was very good and nourishing food, I think, from the appearance of it; I have a tin which I shall keep for some years; my opinion is, that from the way in which it is put up, it will keep for six or seven years.

1803. The price is 5 ¼ *d.* a lb?—Yes, that is what they charge us; they tendered it to us at that price.

1804. What quantity did you take?—Eight dozen of 4 lbs. tins.

1805. Was that for a ship going out with passengers?—Yes, going out and coming home.

1806. Was that ship to take out troops?—No; this meat was only for the passengers; and in case of sickness, the doctor recommends it for the crew. Our ships take a large quantity of live stock; that ship took 50 sheep and a large quantity of poultry.

1807. That is the case generally with your ships?—Yes; some of our ships take 60 or 70 sheep.

1808. How long is the ship which is provisioned with these Australian provisions to be on the voyage?—Ten months; that is the average length of the voyage to Calcutta, out and home.

1809. You have ordered in these meats in contemplation that they will last the whole time?—Yes; I have supplied some of our south whalers with preserved meats; they have been out for three and four years, and have been supplied with provisions for that time, and there is no doubt that they will bring them home quite good. Those ships take a quantity of preserved meats for the use of the crew.

1810. You give preserved meats in the case of whalers?—Yes, we generally put in more preserved meats into those vessels in order to prevent scurvy; but I have never since

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I have been home from sea, known a case of scurvy on board any of our ships.

1811. But you said that you had had occasion to condemn a portion of these meats?—That occurred when I was inspector of provisions for the East India Company. I condemned some, and the reason of my condemning them was, not that they were actually bad, but that I was certain they would not keep for the voyage, owing to their having so large a portion of carrots and barley and not sufficient meat.

1812. All the preserved meats you have condemned have been mixed with vegetables?—Yes, I have condemned them for that reason; not that there was any smell about them, but that I was certain they would not keep for the voyage.

1813. You consider that for keeping purposes vegetable soup is not desirable?—No, I think not; we send carrots and parsnips and peas and those kind of things, but they are packed separately.

1814. And preserved potatoes?—Those are in a dry state; we send them as a stand-by, but we generally send a sufficient quantity of others for the voyage.

1815. The average length of the voyage of your ships to the East Indies is a twelvemonth?—Yes, reckoning their being in port both in India and in England, they make one voyage in the year; sometimes they are not, from the time of leaving to their return, more than eight or nine months; our fast ships are very seldom more than nine months, including their stoppage in India for two months; some of our fast ships will make the passage to Madras in 75 days.

1816. But for vessels making those voyages you have never adopted preserved meats as a regular provision for the crew?—No, we have not; our men generally do not fancy them.

1817. They prefer the salt provisions?—Yes, we give them the best. In inspecting the provisions previously to leaving, I always have the boatswain, and the carpenter, and the chief officers with me, and if they have any complaints to make I request them to make them to me, and I put them down in writing.

1818. Do you recollect at what period you first began to use these meats for Mr. Green's fleet, or have you used them for the whole 13 years?—I recollect preserved meats being used upwards of 30 years ago, not in Mr. Green's fleet particularly, but they were used in 1821 in a ship I was in; but the price of the meats was so great at tha time that they were not used to any great extent.

1819. Have

1819. Have you ever purchased meat so cheap as this Australian meat?—No.

1820. What have you given for preserved meat?—We have given from 9 *d.* to 1 *s.* a pound.

1821. Then the meats you have lately purchased are about one half the price that you have been in the habit of paying?—Yes; we have taken large rounds of beef that would weigh about 20 pounds; we have taken them out in the same manner, and I have seen them come home again perfectly good.

1822. By whom were those supplied?—I think by Messrs. Cooper; I am not certain.

1823. With what contractors have you dealt most largely?—Messrs. Cooper have part of our orders every year, and Mr. Gamble has another part, and Messrs. Copland & Barnes another part; those are the three parties we deal chiefly with, and we have had no complaints of the meats they have supplied to us.

1824. You have never had occasion to condemn any of those meats that have been entirely meat and not mixed with vegetables?—No.

1825. Nor have you had complaints that they were bad and unfit for the use of the passengers?—No.

1826. Notwithstanding you have always, on the return home of the ships, made an examination yourself, and have had the steward and some other officers present at the time, and have desired them to state to you any complaint that has been made with reference to the provisions?—Yes, the stewards are entirely under my control in the provisioning of the ships in every way, both outward and homeward.

1827. Sir *F. Baring.*] What proportion of the canisters have you been in the habit of opening?—If I have any suspicion perhaps I open 10 out of 100.

1828. If you had a suspicion, you opened as many canisters as you liked?—Yes.

1829. But, generally speaking, what quantity are you in the habit of opening?—From the makers that we are accustomed to obtain our supplies from being men that we can rely upon, we generally open only two out of a lot sufficient for a voyage.

1830. What do you call a lot?—Perhaps eight or nine dozen; their credit is at stake, because if there was any complaint affecting their respectability as tradesmen supplying the stores, they would lose our orders for the future.

1831. Mr. *Miles.*] Can you by any reference to any memoranda

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memoranda that you have, give us the prices at which these preserved meats have been supplied for Messrs. Green's ships in the last 13 years?—I can send that to you; I have not got it with me; you can generally tell if the provisions are bad without opening the tins; if fermentation has taken place you will find that the tins are as perfectly round as possible; if the fermentation has not taken place, if you have a dent in the tin the dent remains; if fermentation has taken place the dent will swell out again, and the top of the tin will show it, it will be convex instead of concave.

1832. For a ship of 1,400 tons, bound to India and back, how many pounds of preserved meat would you send out?—I should think about 1,000 lbs. weight, and some of Mr. Green's ships have taken 2,700 lbs. weight.

1833. If any of these meats are bad, does the steward report them, or does he enter in his log-book any that are condemned on board?—Yes; we have an expenditure book for the steward, with a column headed for every article, no matter how trifling it is, and he has to enter how it is expended; and we have another column in which he is to enter whether it is bad, or whether a tin has broken; or if a fowl dies he is to enter that; that comes before me, and if I see anything that I think is wrong I question the steward upon the subject.

1834. An inspection takes place of the preserved meat in the ship after every Indian voyage?—Yes, of all provisions remaining.

1835. Could you at all tell us the proportion of condemned meat by the steward or by yourself after each voyage?—I do not think out of the whole of the fleet we have had 10 tins condemned for the last two years.

1836. Let me take you to your whaling vessels; what quantity of preserved meats do you send with your whaling vessels?—I should think about five or six cwt.; not more than that.

1837. What is the reason you send so small a quantity in your whaling vessels which go out for so long a time?—They put into the islands of the Pacific, and they purchase pigs, and those kind of things, at reasonable prices.

1838. After a vessel has been out in a whaling expedition for three or four years, upon the examination of the preserved meat, do you find it necessary to condemn a large quantity?—No; we frequently send the meats out again.

1839. Then the whole tenor of your evidence goes to show that preserved meats, such as have been supplied for

Mr.

Mr. Green's vessels, will remain good for a long time?—Yes; if they are good in the first instance they will remain good for almost any term of years.

1840. Lord *C. Hamilton.*] I understood you to say that in former years you had been in the habit of obtaining these meats, amongst other tradesmen, from Mr. Goldner, but that in the last three or four years you had not obtained any from him; can you state to the Committee the reason why you have ceased to deal with Mr. Goldner?—What we had of Mr. Goldner was meats that he called of the first quality, that is, salmon, soups, and those kind of things, and the stewards made some complaint that they were not good. I cannot recollect exactly what the complaint was; and that was the reason we have not dealt with him since.

1841. Those complaints were made three or four years ago?—I think it was quite that, if not more than that.

1842. Those were complaints of such a character, that you have not dealt with him since?—The steward was not satisfied with the provisions.

1843. You renounced dealing with Mr. Goldner owing to the steward recommending you not to do so from the failure of the provisions that he had supplied?—Yes, quite so.

1844. Viscount *Newport.*] You said that Mr. Green had lately used meat which had been supplied from Australia?—Yes.

1845. And that was supplied at 5 ¼ *d.* a pound; do you mean 5 ¼ *d.* a pound delivered in England?—Yes.

1846. At what price would it be offered in Australia?—The tins would be the greatest expense there; they are obliged to boil down a large quantity of cattle for the sake of the tallow, and our ships get supplied with meat there at 1 ¼ *d.* and 1 *d.* a pound.

1847. At what price could this meat be supplied there?—At 3 *d.* a pound I think, and leave a profit; of course the larger the tin the less the price would be.

1848. You mean in canisters of the same size as those in which the meat has been tendered to you at 5 ¼ *d.* a pound?—Yes; in Australia I think you could get it at 3 ½ *d.* a pound for 4 lbs. tins, and larger tins at 3 *d.* per pound.

1849. Lord *C. Hamilton.*] Do they manufacture the canisters in Australia?—I think they do; as a great quantity of tin goes out there as cargo.

1850. Do you think they manufacture the tin better there on the whole than those which are made here?—No, I think the tins are about the same.

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1851. Is there any regulation with regard to the size of the canisters which are supplied to Mr. Green?—The 4 lbs. size is the general size we have; but there are 6 lbs. and 8 lbs. canisters.

1852. No larger size is admitted?—No; we have seldom canisters of a larger size than 4 lbs.; we have found it inconvenient to have them of a larger size than that.

1853. Mr. *Miles.*] Were the meats supplied to you from Australia in large pieces or in small pieces, as compared with those supplied by English manufacturers?—They were rather larger pieces of meat.

1854. In looking over the different canisters of meat, do you find in the contents of the canisters a difference in the treatment by different contractors, some of the meat being cut up in smaller and some in larger pieces, and some being in masses?—The Australian meat is generally put up in masses, but it is generally better for that; some preserved meats you will find very watery; as far as I recollect I think Goldner's was rather small and rather watery, and also the meat supplied by a house in Scotland, Hogarth's soups; but the larger the lumps of meat the better it is.

1855. From what you have seen you would say that the larger the lumps the better the quality of the meat?—Yes.

1856. Have you observed, in opening a canister of this meat, whether there is a considerable quantity of gelatine at the top?—Yes; there is a great deal of gelatine.

1857. Are you of opinion that the larger the quantity of gelatine the better the quality of the meat?—If the gelatine is solid, but not if it is liquid.

1858. The more it approaches to gravy the worse is the meat?—Yes; and in the Australian meat there is a great deal of fat, and that, no doubt, assists to keep the meat good.

1859. Mr. *Gwyn.*] What kind of meat was it; mutton or beef?—Entirely beef; I have never seen mutton from Australia preserved in tins.

1860. Which keeps best, mutton or beef?—I do not think there is any difference between different preserved meats if it is properly cured; we find that salmon, if it is put up well, keeps equally well with beef.

1861. Mr. *Miles.*] Comparing the Australian meat with Goldner's meat, in which have you found the most fat?—I have found more fat in the Australian meat than in any meat in this country.

1862. Was there any deficiency of fat in Goldner's meat?—It

—It is some time since I opened any of it; but, as far as I recollect, there was very little fat indeed.

1863. Mr. *Yorke.*] You compare Australian meat with our English meat; when you make that comparison, do you refer to the best English meat that is produced in this country, or do you refer to what is supplied by the contractors?—I mean the best; the India beef is the best in the market; that is, beef cured expressly for India voyages.

1864. When you institute that comparison, do you mean the beef which is usually supplied by contractors to the ships, or the best English joints which are produced in this market?—I mean that which is bought for the supply of the ships.

1865. You do not mean to say that our best animals are not equal to those supplied from Australia?—No, I do not mean to say that.

1866. Viscount *Newport.*] Your ships are not supplied by contract?—No.

1867. You always endeavour to get the best meat?—Yes.

1868. Mr. *Fordyce.*] Your canisters are 4 lbs. canisters?—Yes; we generally have 4 lbs. canisters; we do not have sixes often, and we never go higher than sixes.

1869. How do you stow them?—The steward stows them in his locker, and opens a cask as it is required, and the remainder are down in the ship's hold, among the other stores. We do not take any pains to give them air, or anything of that kind.

1870. You have generally found that the solid pieces of meat are the best?—The more solid the contents of the tins the better they keep.

1871. But these preserved meats have never been used as rations on board your ships?—No; except in taking out troops, or something of that sort, and then they are served out once a week to the troops.

1872. The seamen do not like them?—The seamen do not care about them, and the troops do not care about them so much as is generally supposed; they are very often thrown overboard or given to the pigs.

1873. Are they much used by the captains?—No; there is a large quantity of live stock on board; they are very seldom used except as soups.

1874. Are your men victualled on a regular scale?—Yes; they are upon what we consider a very liberal scale, and we never have any complaint; we give them the best provisions, and we very seldom have any grumbling in any

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of our ships as to the provisions; we give them at the rate of an 8 lbs. piece of beef, 2 ½ lbs. of flour, half a pound of raisins, and a quarter of a pound of suet, to a mess of five men; that is, day and day alternately, and the other day we give them a 6 lbs. piece of pork, and peas to make good soup.

1875. And you have not many complaints about the victualling?—No; it is a thing that seldom occurs. We give them a pint of tea in the morning and at night, and a certain quantity of spirits in the day, subject to the discretion of the captain. In bread we do not allowance them at all; the allowance would be a pound; but we find that they never eat a pound a day; they take a bag of bread in the forecastle, and, as long as they do not waste it, they use as much as they like; they have a cask to keep it dry and wholesome.

1876. Do you find that the crews that go out in your vessels generally come back again in the same vessels?—In some cases they do. We had a ship arrive last Sunday; she went from hence to Sydney: we had nine of our men start for the gold mines, and the remainder of the crew said to the captain, "If you will give us 1 *l.* a month extra we will work the ship to India and home without taking any other men on board," and they did so; and they came home in the ship perfectly satisfied, and worked the ship as well as a full crew could have done.

1877. Admiral *Bowles.*] What did the crew consist of?—The crew of the "Windsor" would be 24 A. B's., six ordinaries, and four boys.

1878. Nine of those went away to the gold mines?—Yes.

1879. And the rest worked the ship?—Yes.

1880. Does the contractor give Mr. Green any warranty as to the time the meats shall keep good?—No, we have no contracts.

1881. The person of whom you purchase them gives no warranty?—No; the only warranty is that he would lose our custom if the meats turned out bad.

1882. Admiral *Stewart.*] When a ship returns, what becomes of the preserved meats that are left?—They all go to our warehouses. We have a warehouse for each ship; they are inspected by me, and if I deem them fit to go they are sent out again.

1883. What species of preserved meat did you get from Goldner; was it boiled beef, or did it consist of various kinds

kinds of meat?—Various kinds. It was merely for the use of the passengers, for the cuddy as we term it; it consisted of beef, fish, fowls, and other descriptions of meat.

1884. Then the preserved meat which Mr. Green had consisted of various kinds for the passengers, and not simply of boiled beef?—Exactly.

1885. Can you say in what year you ceased to deal with Mr. Goldner?—I cannot say without referring to my memoranda. I think it was three or four years ago; perhaps more than that.

1886. Are you aware whether the last provisions you had from him were manufactured in England?—Yes; Mr. Goldner, at that time, in preserving articles, such as fowls and those kind of things, was reckoned the best in London.

1887. Did you ever find in any of Mr. Goldner's canisters any substances unfit for food?—No.

1888. No complaint of that kind was made?—No. I have never had any occasion to condemn Mr. Goldner's meats myself; but the stewards made a complaint that some of them were not quite the thing, and that is the reason we have not dealt with him since.

1889. Do I understand your meaning to be that vegetable soup does not keep so well as meat by itself, or vegetables by themselves, would keep?—Yes. With regard to all the provisions which I have had occasion to send out to India and back again, I have found vegetables with those in which fermentation took place; there is a great quantity of foul air, and when you stick a knife in the air flies out, and smells unpleasant.

1890. I ask you that question because we have heard that when preserved meat was served out as a medical comfort, the soup, in the various reports of the medical men, and particularly the carrot soup, is mentioned as having kept the best; have you any experience of carrot soup?—No; we take the carrots separately, and the parsnips separately; but the soups that I have found bad, on their return from India, have had some carrots and barley and those kind of things mixed with them. I have never had occasion to condemn a tin of soup where there have not been vegetables mixed with it.

1891. Sir *F. Baring*.] Can you give us, without much difficulty, a return of the quantity of preserved meats which you have had, the quantity which you have rejected, and the quantity which you have subsequently condemned?—During the two years that I inspected for the East India Company,

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Company, I condemned a great quantity, but it was not from the bad smell, it was from the watery substance that I found, and the quantity of vegetables that there was with it.

1892. Can you give us the proportion of the quantity received, and the quantity you rejected upon the first examination, and the quantity you subsequently condemned as not fit for re-issue, or that was condemned on board ship?—I have condemned frequently articles of provision which have been purchased in India. I have condemned from 50 to 100 tins that had been left; that had been purchased for the troops homeward bound. I cannot tell who the man was of whom they were purchased. On the inspection of provisions outward bound, generally, if I found them bad, after opening eight or 10 tins, I have condemned the whole; I have never allowed any to pass.

1893. The East India Company could furnish a return of the number condemned?—The East India Company have nothing to do with the provisions; they employ a person to inspect them. The owner of the ship engages to take out troops, or to bring home troops, at so much a head, and furnish them with provisions, on a scale laid down by the East India Company, so that I do not think the East India Company can give information on the subject.

1894. You have no means of giving us the proportion of that which has been rejected by you?—Perhaps in the whole 12 months the proportion may be five per cent. out of some thousands of tins.

1895. You think that the condemnation would amount to five per cent.?—Yes, I think it would, because I send back the whole batch. I do not condemn any of it, I merely refuse it as it is not a good article and will not keep the voyage.

1896. You think about five per cent. have been rejected?—Yes.

1897. Then of the quantity that is actually received a certain proportion is condemned and not re-issued?—Yes.

1898. Can you give me any notion of the quantity that has been condemned and not re-issued?—I cannot; the only information you could get of that would be upon the voyage; when once it goes away from here we have no further control over it; the only control we have is inspecting it upon its return after the voyage; if, on opening so many tins, we find the meat not satisfactory, we send it back again, but we do not condemn it.

1899. Will

1899. Will you confine yourself to that which you have actually received and which has been sent on board ship to be used; some of it turns out to be bad when it is issued as provisions of the ship, and that is noted in the steward's expenditure book?—That would not amount to one per cent. in our whole fleet; I do not think it would amount to 10 or 15 tins for the whole year.

1900. Would that be half per cent.?—I question whether it would, but in the last year, and the year before that, we had not a single complaint of the provisions.

1901. Part of the meat, if there is any surplus, is returned into store?—Yes, and sent out again by the ship on her next voyage.

1902. That is examined by you?—Yes.

1903. In your examination of it is any portion of it found unfit to be re-issued?—In the last two years I have not found a single tin which we have sent on board from England ourselves that has turned out bad. We have sometimes ships bringing home troops from India, and they are obliged to take up preserved meat there to issue for rations.

1904. Where is that procured?—That is sent out from England as cargo by some ships and purchased in India.

1905. Can you give us any notion, for five or six years, what proportion the condemnations bear to the amount received by you?—I think of the meat we purchase in India, for the use of the troops home, five per cent. would be the proportion rejected; it is not more than that certainly.

1906. You cannot furnish the Committee with the actual figures?—I can send them to the Committee; I will refer back to the last 10 or 12 years.

1907. Mr. *Miles.*] By reference to your books, can you tell the prices at which all these preserved provisions were purchased by Mr. Green at different periods?—Yes.

1908. May I request you to refer to December 1844, and see what you paid for your meat at that time; and also on the 10th of June 1846, the 3d of March 1847, the 15th and 19th of February 1848, the 2d of May 1850, and the 29th of January 1851?—Yes, I will do so. Price of beef and beef soup: in 1844, 1 *s.*; 1846, 10 *d.*; 1847, 10 *d.*; 1847, Goldner, 7 *d.*; 1848, Cooper, 8 *d.*; 1850, Cooper, 7½ *d.*; 1851, Gamble 7 *d.*

1909. Lord *C. Hamilton.*] Can you tell the Committee from whom those meats in India are purchased; have you any particular agents there?—We generally purchase them

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from our Dubash in India, and he purchases them from other parties.

1910. Is there an examination of them made on board ship?—There is an examination made by a military committee on the part of the Government.

1911. Therefore this meat, of which five per cent. were condemned, had had an inspection by a military committee in India?—Yes; a military and a naval committee; a most strict examination.

1912. Mr. Green is not the party concerned in that matter, but it is done by the Government alone?—Yes; but the provisions Mr. Green has to purchase in India.

1913. But none are allowed to be put on board but those which are inspected, and have the approval of the naval and military authorities there?—No.

1914. And the condemnations of those meats, when they arrive in this country, are five per cent?—Yes.

1915. Whereas the condemnations of those which you sent out from your yard did not amount to one half per cent.?—One-half per cent. is the outside; I do not think it is so much as that.

1916. Admiral *Stewart.*] Do you attribute that to the lapse of time?—We attribute it to the superior articles that we put on board; they will keep any length of time if they are good and if the tins are not injured by rust.

1917. Mr. *Miles.*] Of the canisters of preserved meats sent from India, of which five per cent. were condemned, you cannot recollect who the manufacturers were?—No; but I think I could ascertain if the Committee wish to know.

1918. Mr. *Fordyce.*] Are there many complaints of the boiling away of the salt meat?—Yes; we find that the cooks boil the meat too much; we give them the slush as a perquisite; there is a great deal in the way of boiling meat; we insist upon the cooks putting the meat into cold water; but if you do not watch the cooks very narrowly they will put it into hot water, which destroys the meat; if you put the meat into cold water the meat gets heated gradually, and the internal part of the meat becomes boiled to the same degree as the external part; but if you put it into hot water the outside is boiled, and the inside remains badly cooked.

1919. You have a strict regulation about that?—Yes.

1920. Does the American meat boil away much?—If the boiling of it was not attended to it would boil away more than other meat, because there is more fat.

1921. Is

1921. Is there a great accumulation of slush?—There is in some instances. If we find anything going on wrong, we stop altogether giving the slush as a perquisite to the cooks. We have two cooks, and we do not allow them to have the slush without the sanction of the chief officer, the captain, on the return home.

1922. You take the strongest precautions against the boiling away of the meat?—Yes. Immediately there is a complaint made of the meat shrinking, the commanders take the cook in hand and question him about it; and they often send a person to watch the coppers and see that the meat is boiled properly, and if they find anything wrong they stop it.

1923. What pay does the cook get?—The first cook gets 5 *l.* a month, and the other gets 3 *l.*, and some of them get 3 *l.* 10 *s.*, if they have been in the service a long time; what we call the captain's cook gets 5 *l.* a month.

1924. Does he cook for the ship's company also?—No; they generally work together, and the slush of both parties is put as a joint thing. In our large ships we carry a captain's cook, a baker, and a ship's cook as well.

1925. Admiral *Stewart.*] You stated that you issued 8 lbs. of salt meat for every five men?—Yes.

1926. What weight of salt meat do you calculate each man to receive daily after it is boiled?—I should think about 1¼ lb. Sometimes they might have more, and sometimes less; but I think the average would be 1¼ lb. That gives them meat for breakfast, and for dinner, and for supper.

1927. What is the average time of the salt meat being cured?—We have it as new as we can get it. I have known our provisions go for three and four years. I have examined it after it has come home, in our warehouse, and it has been very good, and we have washed it and pickled it, and it has gone out again.

1928. Have you observed whether it loses much in weight after a number of years?—It loses nearly half.

1929. Do you find the shrinkage increase in proportion to the time it has been kept in pickle?—Yes; especially in pork, the boiling away is greater; a great deal of the pork which some time ago came from Ireland from some makers, from their feeding their pigs on fish, or something of that kind, boiled away very much; but you can easily ascertain that by cutting the pork open and feeling the firmness of the flesh.

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1930. No care in the cook will prevent shrinkage to the extent of about a half?—Not of bad meat.

1931. Viscount *Newport.*] You said that of the preserved provisions which had been supplied in India, five per cent. had been condemned; can you say what proportion of those condemned provisions consisted of preserved meat, properly so called, as distinguished from soup and vegetable substances?—I think full three-fourths of those tins contained vegetables, and not one-fourth was exclusively all meat.

1932. And three-fourths were exclusively preserved meat?—Yes; preserved meat and gelatine about one-fourth.

1933. Admiral *Stewart.*] Are you aware what the shrinkage is upon fresh cured meat?—I have never examined that particularly, but with good meat I should think it is very trifling.

1934. Sir *F. Baring.*] Did you ever try the experiment?—No, I did not; but we give our men 2 lbs. of fresh beef in India and 1 ¾ lbs. in England per man per day in harbour; it is very good meat; they boil a good deal of it, and I have noticed it when taken from the coppers, and have found it was reduced very little in point of size; it depends entirely upon the quality of the meat.

1935. Admiral *Stewart.*] Are you speaking of newly cured meat, or of fresh meat?—I am speaking of fresh meat and meat just salted, nothing more.

1936. Did you state that you were in the habit of using the patent preserved potatoes?—We always send a small portion of them in a ship.

1937. Does it answer?—I think it is a very good thing.

1938. No complaints are made of it?—No.

1939. And it keeps perfectly well?—It keeps well for a voyage. I have known some sent out again for a third voyage.

1940. Do you know whose patent it is?—Edwards's; the reason we send it for a third voyage is, we merely send it in the ship in case the vegetables should run short; but if it is not required it is not used, and consequently it goes voyage after voyage, and I always try it in the canisters, and I know it is perfecly good; I tried it in my house; I put it into a basin and poured boiling water over it.

1941. Sir *F. Baring.*] Have you made any calculation of the cost of victualling a man per day, or per month?—I should think it is about 9 *d.* day; it varies a little as the prices of provisions rise and fall.

1942. Admiral *Bowles.*] What is the average number of men Mr. Green employs yearly in his ships?—I should think, at a rough guess, about 1,600.

1943. In how many ships?—We have 29 ships afloat now.

1944. Does that include the officers?—No, it does not include the officers; in our large ships the crew, including officers, are 86 men.

1945. Of what tonnage are the ships?—One thousand four hundred tons.

1946. What proportion of those 86 do the officers bear to the men?— We have generally five officers and six midshipmen.

1947. There are 75 seamen?—Our steward's staff is rather large; they do no other work; our working men are about 50.

1948. Twenty-five in a watch?—Yes, quite that.

1949. Mr. *Fordyce.*] Have you made any alteration or improvement in the victualling of the men of late years?—No; our scale of victualling, with the exception of lime-juice, is the same as it was 20 years ago; it was the scale of victualling drawn up by me when I was at sea, and Mr. Green has adopted it.

1950. Have you found that that scale is satisfactory to the men?—Yes, very satisfactory; we find no grumbling at all.

1951. Admiral *Bowles.*] You find, generally speaking, that the same men, or nearly the same men, enter your ships on different voyages?—They consider it a punishment if they are turned out of our employment; when a ship arrives the superintendent of our sailor's home goes on board that ship with a list of all the crew; he goes to the chief officer, and if there is any black sheep among them he puts a tick against his name, and he is not eligible to go again on board the ship; they frequently come to Mr. Green to make a complaint of being dismissed, and he then has a regular inquiry, to see whether the complaint is just or not.

1952. What number of boys do you take?—In our large ships six, and in the other sizes four young boys.

1953. How young are they?—From 15 to 18.

1954. Able to work?—Yes, many of our boys, after having been four years at sea, the officers take as able seamen.

1955. Mr. *Fordyce.*] Do you get a supply of boys readily?—Yes, we get more applicants than we can take on.

1956. Admiral *Stewart.*] Do you take them as apprentices?—We do not take apprentices now; we find the boys

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are much better without being apprenticed; when they were apprenticed for four years, when the boys were at home, they used to congregate together, and spoil each other, and get so obstreperous that we could not manage them; now, if they are obstreperous we send them about their business, and we get much better boys than we got formerly; we had 50 boys at home at one time, and one of our boatswains annoyed them, and they turned to and thrashed him.

1957. On shore?—Yes; we were obliged previously to the recent law to take apprentices, but we are not obliged to do so now.

1958. How do you keep the boys in order at sea?—They keep them in order very well there.

1959. *Chairman.*] Did you command a ship? — I was steward and purser.

1960. How long were you purser in Mr. Green's ships?—I was 14 years previous to my leaving the sea.

1961. And you have been 13 years on shore superintending the victualling department?—Yes, I left the sea in 1839.

1962. And during all that time you have never had recourse to the contract system for provisions?—When I first left the sea we used to contract for all the stores; I then recommended Mr. Green that it would be more advantageous to put the tradesmen on their respectability and give them better prices for what they supplied, and if we found the articles bad to turn them off, and we found that a very great saving. Some of our tradesmen we allow to purchase things at the market price, and we give them 5 per cent. for their trouble, but we insist on having the best articles.

1963. You consider that more economical than the contract system?—Yes; if the provisions are bad at sea they are thrown overboard, and consequently you must give something else in lieu of them. We used to give the seamen mess beef and mess pork some years ago, but recently we have found that the cheapest plan was to give them the best provisions that could be got, and that is the reason why we never put any on board without examining them in the presence of the chief officers, the boatswain, the carpenter and the steward.

1964. Admiral *Stewart.*] And then you head the casks up again?—Yes.

1965. Mr. *Miles.*] It was on your recommendation that the system of contracts was given up by Mr. Green?—Yes.

1966. You have told us the per-centage that is lost by preserved

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preserved meat becoming bad, but can you carry your recollection back to the period when you were under contracts, and tell us what the per-centage of loss was; were you ever under contracts previously to this?—Not for any large quantity; there were preserved provisions in 1821, when I was at sea, but they were very dear at that time.

1967. Was the per-centage greater of those which were condemned?—Not so great; when they were first brought into use they always were of a first-rate quality; we paid large prices for them, but they were of good quality.

1968. As regards your salt provisions, do you find that there is less shrinkage now that you purchase the best article without contract than there was when you purchased by contract?—Yes, much less.

1969. Can you, by reference, give us the different per-centages?—I can.

1970. Will you be kind enough to do that?—Yes, I will.

1971. Admiral *Stewart.*] You use the old provisions the first, after you have tested the old beef or the pork?—With regard to the old provisions that come home, we take the whole of them out of the cask, and wash them, and repickle them, and we use that first. Bread we never send a second time; whatever quantity may be left we always condemn.

[*The Witness subsequently furnished the following:*]

Shrinkage on best meat - - -	22 to 25 per cent.
„ „ inferior meat - -	35 to 40 per cent.

Difference, 10 and 15 per cent. between the India meat and mess meat of inferior quality.

Richard Carey Dangar, Esq., called in; and Examined.

R. C. Dangar, Esq.

1972. *Chairman.*] DO you reside in the City of London?—My office is there.

1973. What is your occupation?—I am a merchant, and import Australian preserved meats.

1974. How long has the manufacture of the Australian meats that you import been carried on?—About four years.

1975. Since the factory has been established there?—Yes.

1976. Are you the importer of those meats on account of any company?—I am part proprietor of the works myself,

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and my two brothers are partners. I sel the meat here, and my brothers are in the colony.

1977. Where is this manufactory?—At Newcastle, north of Sydney.

1978. Are those meats extensively sold and used by ships in the colony?—Yes, they are sold to a rather large extent there.

1979. Have you supplied Her Majesty's ships with any meats on that station?—We have.

1980. Was that done by contract?—Yes.

1981. When?—I am rather unacquainted with the contracts on the other side. I do not know the date of those contracts.

1982. Were they entered into with the commanders of the vessels?—No, with the Commissariat at Sydney.

1983. How long has the importation into this country of this meat taken place?—Nearly about the same time; almost immediately after we commenced preserving.

1984. Is it carried on to a great extent?—We are increasing our operations from year to year, and we hope to increase them still further, should the demand continue good.

1985. Has the demand lately increased?—I think it has.

1986. You have supplied some of Mr. Green's ships?—I have supplied one of Mr. Green's ships.

1987. That is quite latterly?—Yes.

1988. What quantity did you supply?—I think it was for cabin use, it was a small quantity, about three or four cwt. I have supplied Mr. William Tindall's ships, also Mr. Dunbar's, Messrs. Gibbs, Bright & Company's ships of Liverpool; and the ships of many others.

1989. What quantity have you imported into England within the last year, 1851?—The quantity shipped from Newcastle up to the end of last November, for the English market, all preserved in 1851, was 37,000 tins, or about 180,000 lbs., part of which has not arrived. The estimated quantity altogether put up in 1851, 280,000 lbs., and likely in 1852 to be about 400,000 lbs.

1990. How long are those meats on the voyage from Newcastle?—They average about four months and a half.

1991. From the time they are shipped?—From the time they are shipped, the average is six months.

1992. Do you keep a very large stock of them in this country?—No; I sell them as quickly as I can on arrival.

1993. And the demand has been such as to keep down any

any great accumulation?—Yes; but the demand is entirely private.

1994. That is to say, you do not supply them by contract?—I mean, I do not supply the Government.

1995. Have you ever supplied any firm or any shipowners by contract?—Not any.

1996. What was the price of those meats in 1850?—In 1850 I sold them at about 5¼ *d.* wholesale.

1997. What quantity do you consider wholesale?—Any quantity supplied to parties as ship-store dealers.

1998. In 1851 was the price increased or diminished?—Diminished. If we have a stock here we are obliged to sell; it would not do to accumulate a very large stock.

1999. What have you latterly been selling at?—My price now to store dealers would be 4 ¾ *d.* in 6 lbs. tins; to shipowners I charge a higher price than to store dealers.

2000. What sized tins do you find most convenient?—Six-pound tins.

2001. The great part of your meats is imported in those tins?—Yes, we have them in 8 lbs. tins, but a very small number of those; in fact far the greater part of those we get, are in 6 lbs., and some 4 lbs. tins.

2002. What is your opinion with respect to the size of the tins; would it be desirable to have them in larger tins?—Not larger than than 6 lbs. tins; I think the preservation is far better in 6 lbs. tins; in the 4 lbs. tins of course it is quite as good; but you are alluding to increasing the size of the tins beyond that. I should say the tins ought not to be larger than 6 lbs. tins.

2003. Mr. *Miles.*] Why?—In the larger pieces of meat there is more cooking required, and there is greater difficulty, I apprehend, to get at the interior of the meat, from the larger extent of it.

2004. *Chairman.*] The process is not so surely carried on with large pieces of meat?—No, I think not.

2005. Were your brothers settled in the colony at the time that this manufacture began?—Yes.

2006. They did not go out from here to carry it on?—No, I sent a manager out; they are stock holders in the colony; they do not attend to the concern themselves; they merely have an interest in it.

2007. Did you find any difficulty in obtaining a proper person to conduct the process?—There was a difficulty, but I succeeded in getting a person taught; the present manager, Mr. Gedye, who has been very successful.

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2008. Is it a difficult process to learn?—No, it is simple.

2009. Is the expense of the factory very great?—It depends entirely upon the scale on which it is carried on.

2010. To what extent could the factory that is carried on in Australia produce preserved meats?—At present I think it could produce from 500,000 to 700,000 lbs. a year very easily, and, with a small expense, double or treble, or to a much larger extent than that.

2011. Has the outlay been very great in the buildings and machinery?—No, not very considerable.

2012. Do you send out the tins from England?—Yes; we send out the bottoms and tops stamped; and the tin plates in the original packages, for the bodies and sides.

2013. You send the tins partly prepared?—Yes. If a large establishment was being carried on there, I should recommend that which is called the stamped work being done on the premises; it might very easily; labour being dearer in the colony, is one slight advantage in having it done here.

2014. What proportion does labour in the colony at Newcastle, where your brothers are carrying on business, bear to labour here?—The principal labour is the tinmen's; those I engage here, for three or four years, and send out. I should think the wages of the men would be perhaps 15 or 20 per cent. dearer there than here; common work would be more than that; so that if I did not engage the tinmen here, we could not get it done so cheaply.

2015. What number of persons have you sent out?—We have nine tinmen there at present, besides some who are engaged in the colony; if suitable persons offer there, they are engaged.

2016. You do not find it difficult to obtain persons there to perform the ordinary labour of the factory?—Not very.

2017. Are the cattle driven from the interior?—Yes; Newcastle was selected, because it is nearer the cattle stations than Sydney; in fact, if the factory was at Sydney, they would have to be driven 100 or 200 miles further. Newcastle also has the advantage of a good harbour, and plenty of coal at a cheap rate for the steam boilers.

2018. And the price would be enhanced?—The price at Newcastle and at Sydney is much the same; but the cattle are kept in better condition from not having so long a journey to make.

2019. How far distant is Newcastle from Sydney?—It is 70 miles by water; but by land the distance is very much increased;

increased; there is a series of mountains which have to be passed over.

2020. By water it is 70 miles?—Yes; cattle are never taken by water; their price would not admit of that.

2021. How long have you usually been in sending out orders to your factory?—We never send them orders; all they do not sell in the colony they ship to this country.

2022. Therefore your employment here is to sell the surplus?—Yes.

2023. But supposing you had the certainty of a large quantity being required here, could you obtain it?—We would not sell any there in that case, but we would make any quantity that might be specially ordered.

2024. Have you ever contemplated any contract?—I have once, to a small extent. I am in this position, I might be able to supply a much larger quantity than I should feel it safe to contract for. I am not certain of supplies.

2025. That depends upon the want of certainty in the demand, and the great distance of the factory?—Yes; I am not sure of the quantity coming forward. If the Government thought of preserving in the colony, I would gladly sell the establishment altogether.

2026. The price at which you are selling now is very low; do you consider that there is any profit attached?—I fear not.

2027. You do not consider that you are making a profit by what you are selling at 4 ½ *d.* per lb.?—I have never received anything on account of the meat preserving from the first. I do not know whether the price of cattle in the colony would be any guide to the Committee. Sometimes, in drought, they become dear, in consequence of the fattening not being so expeditious; they vary from 25 *s.* to 70 *s.* per head.

2028. Is there then another manufacture carried on for melting tallow?—In preserving meat all the surplus tallow is saved, that and the hide of the bullock is taken from the original value.

2029. Probably that part of the business is far more profitable than the preservation of meat?—The value of the cattle, in ordinary seasons, is guided entirely by their value for tallow. Of course, in tallow melting, all the leaner part of the meat are useless for that purpose; therefore, the leaner parts of the meat can be preserved.

2030. Which would otherwise be useless to you?—Yes.

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In boiling down cattle for tallow we use all the fatter parts of the meat, and the leaner parts are preserved.

2031. Mr. *Miles.*] Those leaner parts not being subjected to the boiling process for making tallow?—No. But it would not do to preserve the leaner parts of the meat without some of the fatter parts; the quality would not be good; but all the kidney fat, and the surplus fat, which would be considerable, is used for making tallow.

2032. You have given the names of several mercantile houses whom you have served latterly; have you served those houses from the first commencement of the factory?—Mr. Tindall's I have; nearly from the commencement.

2033. Are you able to tell us whether Mr. Tindall has on board any of his ships meat which you have manufactured as long ago as four years?—I do not think he has.

2034. What is the longest test that the meat has been subjected to?—I have some in my office that has been preserved for four years.

2035. Have you examined that meat lately?—I have not.

2036. You have stated to us that the price of cattle differs greatly in Australia, owing to the droughts there; can you give us the price per cwt. from the year you commenced your manufacture?—I have the price of cattle at the latter part of 1850 and the beginning of 1851, and I find that the price varies considerably; the price in December 1851 was 27*s.* 6*d.* to 40*s.* per head; those cattle, of course, would vary in weight; the cattle of Australia are of the Durham breed of this country, are very fine, and I think would average from six to seven cwt.

2037. You have given us the price for one year; can you give us the price for another year?—In 1850 the price was higher in consequence of the drought, but even in that year they did not exceed 80*s.* per head, and were as low as 26*s.*

2038. Have you yourself been in Australia?—I have.

2039. Were you there when you commenced your factory?—No.

2040. I do not know whether the mode of manufacture is a secret, and that we must not inquire into it, or whether you are able to give us all the information we require?—There is no secret about it; the week before last there was a very simple explanation given in the "Lancet," of the process as it is carried out by us; it is stated in a few words, and if you will allow me, I will read it; it is as follows: "The

"The article to be preserved is placed, sometimes in the raw state, but generally cooked, in a tin canister, the lid of which is soldered down, but it is perforated with a small aperture or pin-hole; it is then subjected to the action of either steam, boiling-water, or a muriate of lime bath, until the contents of the canister, if not previously dressed, have become about two-thirds cooked." By Goldner's process, the muriate of lime bath is used; by the other processes, I believe, boiling-water is used: "The aperture in the cover is then closed, and the canister and its contents are once more submitted, for a shorter period (that is, until the article is completely dressed), to the operation of heat." The object of that is to decompose or exhaust the air that may have remained after the closing up. "As soon as it has become cold the canister is covered over with a coating of paint; its preparation is then complete, and it is removed to the proving-room. The proving-room is simply an apartment, the temperature of which has been raised to the degree most favourable to decomposition; if the operation of preservation has been well performed, the top and bottom of the canister, as also, in some cases, the sides, will have fallen in, or have collapsed to some extent," showing a vacuum in the case, the great object in preserving; and in all cases of meat properly preserved, on an incision being made, there is a rush of air into the canister, which indicates the vacuum. "This indicates the exhaustion of the air within, and is regarded by the manufacturer as a tolerably correct proof that the process has been properly conducted. If, however, after some days' exposure in the proving-room, the top and bottom of the canister first become flat, and subsequently, even convex, it is a certain sign that the contents have not been well cured, and that they are not in a condition to keep for any length of time; such canisters have, therefore, to be either rejected, or else subjected to the same process over again. On a consideration of the above details, it appears that the preservation of articles cured in this manner is due to two causes, viz., first to the coagulation, by the heat employed, of the albumen, which we have stated is so prone to decomposition; and, second, to the expulsion of the air by the same agent. The heat applied causes the air contained in the canister to expand; this expanded or rarefied air escapes by the pinhole in the lid, until nearly all the air is exhausted. The subjection of the canister to the action of heat a second time, and after the aperture has been closed, might appear at first sight to be unnecessary;

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it is not so, however, as it is required to expel the last portions of air in the case, and which escape through the pores present in the tin." I do not think that is correct; it is asserted that after the pinhole is first closed the tin is kept in the bath "to expel the last portions of air in the case, and which escape through the pores present in the tin."

2041. Admiral *Stewart.*] That is before it is painted?—Yes, but I do not think there is any escape of air in or out of the tin after the meats are properly closed in the canisters, and are perfectly preserved; the atmospheric pressure of air on all sides of the case is very considerable; if there were pores in the tin case the air would force through the tin plate inward as well as outward: "The operation of closing the pinhole is one of considerable nicety; the heat employed drives out, not only the air contained in the canister, but also a jet of steam, and this with considerable force; the solderer, therefore, squeezes a few drops of cold water from a sponge, and allowing these to fall on the tin around the aperture produces a momentary condensation and arrest of the steam, during which the pinhole is dexterously closed. The nicety of the operation consists in carrying the condensation only so far as barely to arrest the jet of steam and in closing the aperture at the instant; if carried too far, or if the soldering be delayed, the air re-enters and endangers the success of the process."

2042. Mr. *Miles.*] What you have read is a distinct statement of the way in which your own meats are preserved?—It is.

2043. In the first part of the statement you have read it says, in some cases you put the meat in raw, and in other cases nearly dressed?—Yes.

2044. Have you found any difference in the meats after they have been thoroughly preserved, that were subjected to that difference in the treatment?—I have not, and for this reason, I have not known what meats were so treated, and what were not.

2045. How long are they subjected to the testing-house?—We do not test them at all; we consider that a voyage of several months is quite test sufficient for our meats.

2046. If placed in the testing-house they would be placed altogether in a higher temperature than they would be subjected to during the voyage?—In crossing the line the heat is very intense in the hold of a ship, and I should suppose it would be nearly equal to the temperature of the testing-room. I do not know to what temperature they raise the

the heat in the testing-room, but I fancy one great fault in testing the meats here is, that they test them too soon after they are preserved, and do not allow time for decomposition.

2047. Can you tell us whether the pinhole is opened a second time with you or not?—I do not think it is.

2048. In what sized pieces do you put up this meat?—We have them as nearly the size of the canister as possible; we dislike to have the meat in two pieces if we can help it.

2049. So that it is turned out as a piece of dressed meat in the canister?—Yes.

2050. Is there a considerable deposit of gelatine?—Merely the natural deposit from the meat; we do not add any gelatine to the canisters.

2051. From what you have read, do you conceive that after meats have been tested in a proper testing-house, if they are well examined, and those canisters which have become convex, or more flat, are removed, that would insure proper meat being delivered out?—Generally speaking, it would; of course they would be subject to casual accidents.

2052. But barring accidents, that would be the case?—Yes; if they tested the meat one or two months after preservation, I think that would be the case.

2053. Would you recommend so long a period as that to elapse before the testing took place?—I would. Frequently in the London testing-houses, they test the meat immediately after the preservation of it; I think that is not sufficient, as decomposition does not take place so quickly.

2054. Do not you think it is sufficient if you allow the meat to become thoroughly cool before the testing takes place?—I do not think it is.

2055. Sir *F. Baring.*] The meat is sent home to you to sell; does any portion of that become bad on the voyage?—Yes.

2056. Can you give any notion of the quantity that so becomes bad?—From three to five per cent.

2057. After you have sold the meat that remains good, have you any means of knowing whether any part of that becomes bad?—I can only say, and it is very extraordinary, and very fortunate, that I have had only one tin complained of as bad from the commencement of my deliveries; and that was a tin delivered to Mr. Tindall.

2058. Then you think if the meat does not become bad in the first six months after it is made, it does not become bad for some time after?—No.

2059. *Chairman.*]

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2059. *Chairman.*] How are these meats packed?—They are not in packages; the canisters are stowed loose in the hold of the ship.

2060. Sir *F. Baring.*] Have you stated to us the quantity of meat that you have received in a year?—I have received altogether about 51,000 tins.

2061. Out of that the proportion that has proved bad is from three to five per cent.?—Yes.

2062. Mr. *Yorke.*] You have given an answer that they test the meats too soon, and do not allow time for decomposition; I thought it was to avoid decomposition that the meats were so cured?—Yes, it is to avoid decomposition that the meats are cured; but in the process of preserving, from many causes, the tins, on testing, will prove to be bad.

2063. Can you test them too soon?—Yes, I think you can; immediately after preserving the meat decomposition does not take place; for instance, cooked meat does not decompose for several days; there are no gases given out from it; and with meat preserved, in the same way, immediately that decomposition takes place gases are given out from the meat.

2064. I understand you to mean, when you say that they test the meat too soon, that they may be turned out of the testing-house and not show any visible sign of decomposition although decomposition may afterwards take place?—Yes; but if the meat was tested some time after preserving, that would be obviated, of course.

2065. Mr. *Miles.*] Can you state to the Committee the number of good cases of meat which you have received in your stores since the commencement of your manufacture?—I have received in store from New South Wales, since March 1849, 51,000 tins, those received first being preserved in 1848, from three to five per cent. of which have proved bad.

2066. Deducting that per-centage, I understand you to say that of only one case have you had any complaint?—That is all.

2067. Mr. *Yorke.*] You stated that you had some meat that had been four years in store?—Yes, there are a few cases that were kept.

2068. Can you let us see one of those in this Committee-room?—Yes.

2069. Lord *C. Hamilton.*] Can you state whether any complaints have been made at your factory in Australia?—They have written to me to say that they have not had any complaints.

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2070. Those condemnations that you say are from three to five per cent. have arisen upon examination of the meats when they arrive here?—Yes.

2071. Do not you consider the voyage home a strong test?—Certainly.

2072. You said you did not test them in any proving-house?—I do not know that they test them in any proving-house; we consider the test of the voyage is quite sufficient.

2073. This condemnation of from three to five per cent. of the whole quantity sent, is the result of what you consider the most efficient test you can have?—Yes; but in the lying about in the hold of a ship, the tins may get damaged, and apertures also made which would also, of course, cause decomposition.

2074. Have you given any guarantee as to the time these meats may be preserved?—No; in all cases where a complaint was made of a tin, I would substitute another.

2075. What is your definition of the word "offal"?—I can scarcely tell how the term "offal" is applied.

2076. Can you say what is excluded from this process in your establishment?—I believe all the coarser parts of the neck, and the shin, which are the best part of the offal, are excluded by our factory. I do not know any other part except the known offal that is excluded.

2077. Do you include the tongues among the offal?—No; the tongues would be preserved by themselves.

2078. I understand that the two processes of meat preserving and tallow boiling are carried on in the same establishment?—Yes, I believe they are carried on in the same establishment, or close together.

2079. Mr. *Yorke.*] Have you ever looked at this question in a scientific point of view?—So far as I can understand it, I have.

2080. In a letter of Mr. Goldner, dated Galatz, 9 June 1851, he speaks of the impossibility of bringing this process to anything like certainty; he says, "If their Lordships ever expect to obtain preserved meats not fully cooked, I must say that such expectations can never be realized." Then he goes on to explain that meat, to be properly preserved, must be fully cooked to expel the atmospheric air from its fibres, which are liable to retain air; and then he goes on to say, "that such expectations can never be realized, for the reason hereafter assigned; all their Lordships will ever obtain is preserved meat fully cooked, and

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with its natural flavour if preserved in vacuum; any other process than that is not practicable on a large scale" ?—I believe that if you do not fully cook the meat you cannot preserve it properly.

2081. "There are, without doubt, many things very nice preserved under the old system, such as sardines, salmon, and several articles of food, where the peculiar flavour imparted by the free oxygen of the atmospheric air, combined with those substances, is rather an improvement, or at all events not objectionable; but for meat as daily food it never did, and never will answer" ?—I am not acquainted with the mode of preserving sardines.

2082. "Whatever scientific or competitory information their Lordships may have gathered will not effectually contradict this statement" ?—I believe that to preserve meat properly you require thoroughly to cook it.

2083. Preserved meats, if not fully cooked, you believe will not answer ?—I do not think they will.

2084. Do you know Goldner's process ?—Yes; I know it pretty well; I have seen it frequently.

2085. Your process is a close imitation of it ?—Yes.

2086. Do you believe it to be the only practicable one for preserving meat ?—No; I do not think it is; the point to determine is, which is the best. I consider that which is termed Goldner's process, if properly carried out, to be superior to any other; if the meat preserved by this process, and by the other processes, were tested by scientific men, the advantage of one over the other would likely be soon settled.

2087. Mr. *Miles*.] Is there anything else you wish to communicate ?—To show the capabilities of Australia to supply quantities of meat, I have the number of cattle supposed to be in the colony in 1849, with an estimate of the increase up to 1851. The estimated number of cattle in the colony of Sydney to the end of 1851 was 1,663,000; the number killed for tallow, estimated in 1850, was 50,000 head; in 1851, 55,000; and in 1852 (if the labour market does not interfere) it will probably be a very much larger number. Then I find that to produce about 1,000,000 pounds of preserved meat it would require about 3,400 head of cattle, besides what could be obtained from those cattle for the tallow.

2088. Can you inform us, taking one with the other, what a beast boiled for tallow produces ?—I estimate about two hundred weight.

2089. And taking the prices of tallow in those two years, what

what would that amount to?—The tallow would be worth about 25 *s.* a hundred weight, or 28 *s.*; from that would be deducted the expense of boiling.

2090. How much do you put that at?—I forget the scale for boiling; I think it is about 7 *s.* per head.

2091. So that from 50 *s.*, the product of the beast from boiling, you have to deduct 7 *s.*?—Yes. Then again there would be the price of the hide and the horns; the hide, in the last two years, would be worth from 7 *s.* to 8 *s.*

2092. If you were to kill the same cattle for preserved meat, you would equally have the offal to sell?—Yes.

2093. If you deduct from the 50 *s.*, 7 *s.*, that would leave the net proceeds which you get from a beast boiled down into tallow?—Yes.

2094. Amounting to 2 *l.* 3 *s.*?—Yes; the value of a bullock for boiling is considered to be from 30 *s.* to 40 *s.*; when prices advance beyond that the boiling is discontinued till the prices come down to about those rates again.

2095. Viscount *Newport.*] You stated that your speculation in Australia had not been a profitable speculation?—So far not; but still I have very great confidence that by supplying such preserved beef as I received, the mercantile shipowners, as well as the Government, will be induced to use it more generally; once or twice a week for their sailors (which is done by many at present) instead of salt meats, besides those required for emigrants. If so, it is likely, as the demand increased and the quantity manufactured greater, it would enable us to put it up at a relative cheaper rate.

2096. Do you consider it would be more profitable to set up an establishment of that kind in Moldavia, or any other place in the world than Australia?—My belief is, that preserved beef cannot be put at a lower rate in any other country than Australia.

2097. Mr. *Yorke.*] All the meat preserved in the canisters would be clear profit?—No, there would be some fat with the meat preserved, and of course that would have to be deducted; cattle so preserved would not produce so much tallow as if they were boiled throughout.

2098. You do not, as Mr. Goldner does, go through the seams of tallow throughout the meat, and take all the tallow away?—No; in fact there is a great deal of tallow on the ribs of bullocks; that we preserve, and many other of the fat parts are also preserved.

Veneris, 2° die Aprilis, 1852.

MEMBERS PRESENT.

Sir William Jolliffe.	Mr. Gwyn.
Mr. Miles.	Mr. Yorke.
Lord Claude Hamilton.	Colonel Chatterton.
Admiral Bowles.	Mr. Alderman Humphery.
Admiral Stewart.	Viscount Newport.

SIR WILLIAM G. H. JOLLIFFE, BART. IN THE CHAIR.

William Hogarth, Esq., called in; and Examined.

W. Hogarth, Esq.

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2099. *Chairman.*] WHERE do you reside?—At Aberdeen.

2100. What business do you carry on?—Several. The salmon fishery is my principal trade; but for the last 14 years I have been a curer of preserved meats.

2101. Do you rent salmon fisheries?—I do.

2102. To a large extent?—A very large extent.

2103. When did you commence the preservation of meats? I think it was in 1837; but I am not quite certain.

2104. What was the cause of your commencing that particular branch of business?—It was to make a business for a younger brother at that time.

2105. Has that business been carried on at Aberdeen?—It has ever since.

2106. Upon an increasing scale?—It has been much increased since I became a contractor for the Navy.

2107. When was that?—The first delivery I made on the 21st of November 1850; but I had a small contract about 10 years before for the Navy for medical comforts, but nothing of any magnitude.

2108. What was the nature of the contract which you took in 1850?—For boiled beef.

2109. Was it a contract by public tender?—I am not quite sure whether it was or not; it was done through my agent, Mr. Powell; his name is upon the canisters; but since the month of February last year it has been so.

2110. Was Mr. Powell the contracting party?—Mr. Powell was; but it was stipulated that I should preserve the meats, and my name also is on the bottom of all the canisters.

2110. But

2111. But those meats were known to the Admiralty by the designation of Powell's meats?—They were; but my name is on the canisters, prepared for them in Aberdeen.

2112. It appears from the evidence that we have had that there were 180,000 lbs. contracted for from Hogarth, Powell and Gamble in 1850?—That was in the month of May 1850.

2113. And each were to supply 60,000 lbs.?—Each to supply 60,000 lbs. Mr. Powell never delivered under that contract, and I got his part of the contract. Mr. Gamble's was rejected.

2114. Was Mr. Powell then in partnership with you?—No; he had become a manufacturer on his own account.

2115. After the contract, or previously?—Between the first contract in his own name and that contract; he ceased to be my agent in consequence.

2116. When was that first contract?—The first delivery I made on my first contract was on the 21st of November 1850.

2117. Mr. Powell being the contracting party?—He being the contracting party.

2118. But at the same time he was your agent?—He was my agent; and it was stipulated in the contract that I should preserve the meat.

2119. That was the contract of May 1850?—I do not know the date of it; but the first delivery was in November 1850. The contract was early in the year, I believe, but I have not the date of it here.

2120. Mr. *Miles.*] Was that a Navy contract, or a private contract?—It was an order for the beef; it was not advertised. I do not know the reason why it was given.

2121. *Chairman.*] Is it true that a short time after the contract was arranged Mr. Powell requested that the contract should be cancelled?—That is the contract of this time last year; it was what I alluded to as the contract divided into three. I had a third, Mr. Powell a third, and Mr. Gamble a third. Mr. Powell got relieved from his contract, and I got it to execute as well as my own; but the particulars of his arrangement with the Admiralty I am not aware of.

2122. In the mean time he had ceased to be your agent, and he was carrying on business of his own?—Yes.

2123. Upon his contract being cancelled, was it upon his application, or upon the application of the Admiralty, that it was arranged that you were to perform that part of it?—Mr. Powell applied to me to do it before it was cancelled, and I declined, and afterwards got the order from the Admiralty. What his arrangement was with the Admiralty I do not know.

W. Hogarth, Esq.

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2124. Mr. *Miles.*] Was that contract a private contract between you and Mr. Powell, or was it an Admiralty contract?—Mr. Powell tendered for meat to be manufactured by me, and his tender was accepted in 1850.

2125. Mr. *Yorke.*] The contract was that a certain quantity of meat should be supplied, and the stipulation was that it should be manufactured by you?—Yes; Mr. Powell not being a manufacturer at that time. The first delivery accepted was in November 1850. The first delivery was rejected; that was the first transaction I had with the Government for preserved meats.

2126. Anything you had done before was not done under contract, but under an order?—Yes, it was simply for medical comforts.

2127. When was that?—It was about 10 years before this time.

2128. *Chairman.*] On the first occasion, the contract for 1850, you yourself were not a contractor, but you contracted through your agent, Mr. Powell, with the stipulation that the meats were to be manufactured at your manufactory?—Yes, Mr. Powell tendered in his own name.

2129. He was the contracting party, and he was acting for you as your agent in making that contract?—Precisely so; and he had a commission from me for his trouble.

2130. Then in 1851 he had ceased to be your agent, and he then tendered for himself?—Yes, because he had become a manufacturer himself he ceased to be my agent, as a matter of course.

2131. Lord *C. Hamilton.*] Had Mr. Powell himself, at that time, an establishment for curing meat?—No; it was nearly a twelvemonth after that time before he had an establishment of his own for curing.

2132. What was the quantity of this contract of 1850, which was taken by Mr. Powell?—It appears by my notes here that it was 24,000 pounds. That was the whole that I did in Powell's name, but I am not sure whether it was in one contract or two contracts.

2133. Colonel *Chatterton.*] Why did not you apply in your own name?—Because I was residing 500 miles off; I sold through my agent in his name, and he got a commission for doing it, the same as if he had sold goods to an individual.

2134. *Chairman.*] What was the quantity which you supplied in 1851, under your contract?—I had several contracts in 1851.

2135. But

2135. But there was a contract with Mr. Cooper, yourself, and Mr. Gamble; how much was that for?—The whole is embraced in the 23,926 pounds of beef, which I have already stated in round numbers as 24,000 pounds.

2136. My question now refers to the contract of 1851?—The first delivery was on the 27th of February; that was an order, and not an advertised contract, amounting to 21,000 pounds.

2137. Will you state what you delivered through the year 1851?—I have not got the various contracts; I have only got my deliveries. The total quantity which I have delivered, including what I delivered in Mr. Powell's name and my own, up to the 18th of last month, is 550,020 pounds.

2138. Of that quantity how much has been rejected by the Admiralty?—No part of that quantity has been rejected, but there has been condemned out of that quantity, as being bad, 517 pounds. The particulars of those condemnations I have here, in the Admiralty letters to me, announcing the deductions which were to be made from the various payments to me. The last one amounted to 5 *s.* 7 *d.* off of 1,700 *l.* The total value of the whole condemnations was 16 *l.* 3 *s.*

2139. Mr. *Miles.*] Upon what gross sum?—Sixteen thousand seven hundred and eighty-five pounds; and I am prepared to prove, if it is wished, that a considerable portion of that 16 *l.* 3 *s.* was from canisters which had been disgracefully used somehow, by the bottoms being ground out of them from careless usage.

2140. How did that come to your knowledge?—I refer to Mr. Grant, the comptroller; specimens are lying beside me at this moment; I wrote a letter on the subject to him, which I have here, and I have his answer, which I got yesterday, both of which I can lay before the Committee, if they please. I have also another paper, containing the particulars of all the different condemnations.

[*The following Letters were delivered in, and read:*]

DEPARTMENT of the Comptroller for Victualling and Transport Service.

Gentlemen, Admiralty, 15 December 1851.

I HAVE to inform you that their Lordships have received a report from the captain of Her Majesty's ship "Retribution," on a quantity of your preserved meats supplied for trial on board that ship, and on board her tender, the "Sidon," which has been much approved of; but that it appears a quantity of the meat was condemned, being found

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found stinking, owing to the admission of air, the canisters being reported to be much too slight, and therefore too readily injured.

I have to add that you will be charged with the quantity of meat thus condemned, amounting to 220 lbs.

I am, &c.

Messrs. D. Hogarth & Co. (signed) *Thos. T. Grant.*
Aberdeen.

Gentlemen, Admiralty, 31 December 1851.

I HAVE to inform you, that upon an examination of the preserved meats of your cure returned into store at the Royal Clarence Yard from Her Majesty's ship, "Sidon," the ends of some of the canisters were observed to be convex or elongated, apparently from gaseous matters evolved from their contents; the contents were found to be putrid upon opening the canister, and stinking, and totally unfit for food, although the canisters were sound.

The value of this meat, amounting to 90 lbs., contained in two 9 lbs. and six 12 lbs. canisters, has therefore been ordered to be charged against you under your contract.

I am, &c.

(signed) *Wm. Leyburn,*

Messrs. D. Hogarth & Co. For Comptroller of Victualling.
Aberdeen.

P. S.—The remainder of the meat returned from the "Sidon" is reported to be in the best possible condition, solid, sweet, and good.

(signed) *W. L.*

Gentlemen, Admiralty, 31 January 1852.

I HAVE to acquaint you that the officers of the Royal Clarence Yard have reported that they have examined the store of preserved meat of your cure at that yard, and that they find the undermentioned number of canisters, the ends of which have become convex, and the contents in all probability decomposed; viz.—

14	6 lbs. canisters - - - - -	2	defective.
14	9 lbs. „ - - - - - - -	3	„
19	12 lbs. „ - - - - - - -	3	„
47		8	„

And to request that you, or some person on your behalf, will attend at the examination of the meat in question, a day for which will be fixed, and communicated to you by the captain superintendent of the yard.

I am, &c.

Messrs. D. Hogarth & Co. (signed) *Thos. T. Grant.*
Aberdeen.

DEPARTMENT of the Comptroller for Victualling and Transport Service.

W. Hogarth, Esq.

Gentlemen, Admiralty, 16 February 1852.

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IN reply to your letter of the 17th ultimo, I have to acquaint you that the condemned preserved meats therein referred to was received under your contract of the 27th May 1851; and the sum of 9 *l.* 14 *s.*, deducted from the amount due to you under your contract of the 16th October last, is made up as follows:

	Lbs.			
Preserved meat condemned on board the "Sidon," on 8th August and 15th Sept. 1851	46			
Ditto - "Retribution," 14th and 30th September - -	87			
Ditto - at the Royal Clarence Yard in December - -	90			
	223	at 7½ *d.* per lb.	£. 6	19 4
Erroneously overcharged - -	87	- - - - - -	2	14 4
Fraction of a shilling not paid - - - - - - - - - -				4
			£. 9	14 –

I am, &c.

Messrs. D. Hogarth & Co. (signed) *Thos. T. Grant.*
Aberdeen.

Gentlemen, Admiralty, 23 February 1852.

A SURVEY on preserved meat of your cure having been held on the 12th instant at the Royal Clarence Yard, in the presence of your agent, and 32 canisters having been condemned by the officers, the value thereof, amounting, as shown on the next page, to 6 *l.* 3 *s.*, has been ordered to be abated from the first bill due to you.

I am, &c.

Messrs. D. Hogarth & Co. (signed) *Thomas Grant.*
Aberdeen.

9 Canisters of 12 lbs. - -	108 lbs.		
13 „ 9 „ - -	117 „		
10 „ 6 „ - -	60 „		
	285 „ at 7½ *d.* per lb.	£. 8	18 1
Abate an overcharge on last deduction - - - - -		2	15 1
Amount to be now abated - - -		£. 6	3 –

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2141. It is stated in this paper that some of the canisters are defective?—My letter now before the Committee treats upon the whole of those things.

2142. Did not you receive a letter in answer to your application from the Admiralty, from Mr. Grant, stating to you the number of canisters which had been condemned, and the number out of those canisters which were defective?—Yes.

2143. I find by an Admiralty letter of the 31st of January 1852, that there were 14 six-pound canisters condemned, out of which two canisters were defective; is that so?—Yes.

2144. I find that there were 14 nine-pound canisters condemned, out of which three canisters were defective, and that there were 19 twelve-pound canisters condemned, out of which three canisters were defective; so that, deducting the canisters which were defective, it would appear that the rest was bad meat?—No; that is merely a letter telling me that so and so is the case, and that I must attend at Gosport to see some cases inspected; if the Committee look forward in the papers they will see what the result was.

2145. Mr. *Gwyn.*] What size canisters were they?—Sixes, nines, and twelves.

2146. Colonel *Chatterton.*] You say that some of the meats were defective from bad usage of the canisters; was that all of the same delivery, or of different deliveries?—They did not inform me what delivery it was; except the present contract now running, there was nothing but the year put on the label, so that when I had two or three contracts in the same year it was impossible for me to know under what contract it was. I make deliveries weekly; and it is impossible for me to be able to trace them.

2147. Mr. *Miles.*] After you received that letter in which you had given you the quantity of meat that was condemned, and the canisters that were defective, was any further survey held upon those meats?—A survey then had to be held upon them, and I have stated the result in a letter to the Admiralty, which I have here.

2148. Has a further survey been held upon those meats?—A survey was held upon those meats, which is stated in the letter.

3149. What was the result of that survey as regards the defective state of the meat?—That is stated in my letter.

2150. Will you read it?—"18, Cheapside, 3d March 1852. Sir,—In compliance with the request contained in your letter of 31st January that some one on our behalf would attend at the Clarence-yard at a survey to be held on some

some canisters of our preserved meat, viz., 47, of which eight were stated to be 'defective;' our manager, Mr. Milne, attended accordingly, and brought up here several of the canisters stated to be 'defective,' after being emptied of their putrid contents. Your subsequent letter of 23d ultimo informs us that 32 out of the 47 canisters only were bad, the eight 'defective' being included in the 32. We herewith send you parts of several of these 'defective' canisters for your inspection, and beg most respectfully to protest against our being held liable for any of our goods which may have received such unwarrantable treatment. We likewise protest against being held liable for those which may have been crushed and reported bad on the survey, from 'the canisters being much too slight,' as in the case of the 'Retribution' and 'Sidon' (as per your letter of the 15th December last). This report can only be read thus: that the canisters were not strong enough to bear the usage which they received; while in the opinion of those whom we were by our contract bound to satisfy in this respect they were quite sufficient. We therefore consider, as a matter of both law and justice, that we shall be repaid the value of these misused canisters, and not be held responsible for such in future. And we remain, sir, your most obedient servants, *D. Hogarth & Co.*" Addressed to the Controller of Victualling, Somerset-house. To that letter I received the following reply: "Admiralty, 30th March 1852. Gentlemen,—Having laid before their Lordships your letter of the 3d instant on the subject of the charge raised against you for the value of certain canisters of preserved meat condemned by survey, at the Royal Clarence-yard, and on board the 'Retribution' and 'Sidon,' I have to inform you that as the canisters in question have been condemned, you are liable to be charged with the value of the meat which was contained in them, and their Lordships see no reason why the sum that has been abated should be repaid you." Upon the receipt of that letter I wrote yesterday and asked for those damaged canisters. I have not got an answer to my letter, nor have I received the damaged canisters; but they are in Somerset-house if the Committee choose to call for them. This is the clause in my contract, upon which I say that I only have to please the authorities at Deptford: "All the canisters to be made of tin plates of the best quality, and of a substance in the opinion of the surveying officers sufficiently strong for securing the preservation of their contents during the whole period of warranty of three years." Now it is but fair that I should state what Mr. Grant says. He says

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says that I am bound, if (no matter from what cause) the canisters go wrong.

2151. Lord *C. Hamilton.*] Is not that included in the contract?—Yes. I say that it may be law, but I do not think it is justice. If the Committee will take the trouble to call for the canisters I think they will be of opinion that I have not had fair play.

2152. In fact you are answerable for all that "shall have become putrid, or shall be deemed unfit for Her Majesty's service, either from collapse, or bursting of the canister, or from any other cause whatsoever?"—Yes, it is so. May I be allowed to state that I have never had a canister condemned at Deptford, where all my deliveries took place. I wish that to be particularly noted.

2153. Do you mean to say "rejected" or "condemned?"—Condemned. As I deliver all my canisters at Deptford, therefore I infer that the injury is from ill usage after they have been sent from them.

2154. Mr. *Miles.*] Upon taking into store they only reject, they do not condemn?—They reject.

2155. They look at your canisters when they are taken into store?—They examine them, and sample them.

2156. And if they are bad they reject, but not condemn?—Yes; but I wish to observe, that though rejected they are not putrid.

2157. Have you had any of them rejected on delivery?—One lot.

2158. How many canisters?—Twenty-five thousand pounds. The first contract included the gelatine in the weight; the next contract excluded the gelatine. The Admiralty report from Deptford, as to the cause why they rejected, said that they did not like the look of the meat, as well as that they were short in weight some ounces. That is the only rejection that I have ever had. Those canisters are still in store, and forthcoming if wished for, to prove to the Committee that the cases are not putrid; there were no signs of decay about them; they had not been 10 days made at the time, and if they had been put on a plate for 10 days at that time (Christmas) would have been perfectly good. They have been kept three months since, and there is not one of them bad.

2159. Your warranty goes to keep them three years?—Quite so; and if they give them fair usage there is no doubt about it.

2160. *Chairman.*] Have you supplied the mercantile navy to

to any extent?—My business was entirely with the merchant service up to the last twelvemonth; I have sent to India large quantities.

2161. Has your meat been approved of generally by the mercantile navy?—I believe so.

2162. Do you conceive that the method of preserving meat is a method that may be effectually carried out so as to insure the crews of ships being supplied with good meat?—It is perfectly certain; were I to stand over and see the process done with my own eye I could swear to not one canister in a thousand going wrong; but supposing any of the servants to be careless, and to allow the fires to go out or the heat to fall below a certain point, the meat would not be sufficiently cooked, and no matter what the vacuum was, it would not keep; a fortnight is quite sufficient to prove this; if put into a temperature of 80° it will discover anything that has not been sufficiently cooked; fermentation comes on, and convexity of the ends of the case immediately takes place.

2163. Therefore, although the operation is a delicate one, and requires great care and attention, yet you believe that it can be so effectually done as to insure meat of a good description being perfectly good for the length of three years?—Perfectly certain, and I think that is proved by the statement which I have laid before you of the small number of canisters which I have had condemned out of the large quantity I have supplied, taking into account the fact that it may be proved that many of those that were wrong were so in consequence of unfair treatment; a fortnight is quite sufficient to spoil any case that is not right at the summer heat of this climate.

2164. Was the process which you use, and which you consider so certain of preserving meat as to make it sure of keeping good for three years, the result of your own experience and discovery?—Yes; I do not mean to say that another process differing from my own would not be equally good; I use high pressure steam, while others use different processes; I do not mean by any means to say that other houses may not attain the same end by their processes.

2165. Mr. *Miles*.] When did you commence this process?—In 1837.

2166. Have you, since the commencement, made several improvements upon your process?—I have made several changes.

2167. You have made different experiments upon those meats?—Decidedly so.

2168. Can you give the Committee the quantities of preserved

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served meats that you have supplied to the Navy in last year: —I could furnish it.

2169. Admiral *Stewart.*] You originally began with salmon?— I began with everything; but salmon was more in my way than anything else. The supplies to the merchant service are not the same as to the Navy; they are put up differently, which was the cause of the first failure under the contract in Powell's name; they included the gelatine, which is excluded, or nearly so, throughout the whole of the Government contract.

2170. Do you conceive that excluding the gelantine is detrimental to the preservation of the meat?—I do not think it has anything to do with it. You may have it either way.

2171. Mr. *Gwyn.*] Were you the first person who discovered this process of preserving meat?—No, I am only of 15 years' standing. I am one of the youngest houses.

2172. How long ago was it first discovered?—Forty or 50 years. I think Mr. Gamble goes back something like 40 years. Mr. Moir of Aberdeen goes back nearly the same time; mine is comparatively a young house.

2173. Mr. *Yorke.*] What sized canisters do you think you can count upon as affording the best security for this sort of meat? —I wrote a letter to the Admiralty, giving my opinion upon that point some months ago, on being asked for it, stating the advantages that six lbs. canisters have over the 12 lbs.; and what I stated, as nearly as I can recollect, was, that six lbs. do not require so much cooking as 12 lbs.; it does not require so many hours upon the fire, consequently it is more equally cooked. That is one reason. Another reason is, that a larger case, if it receives a fall, is more easily injured than a smaller case, even though made of thicker tin; its own weight destroys it. But of course in one sense it is as easy to preserve in a 12 lbs. tin as it is in a six lbs.

2174. Would the pieces of meat in a 12 lbs. canister be less liable to be cooked than in a six lbs. canister?—They must be thoroughly cooked in both.

2175. Would there be the same chance in each case that they might not be so well cooked?—No; it is a rule with me that the 12 lbs. case requires a third more time than a six lbs. case; and there is no difficulty about that.

2176. Then what makes you prefer the six lbs. to the 12 lbs.?—It is less liable to injury from a fall on account of its weight.

2177. Then it has nothing to do with the character of the meat as to its preservation?—I have stated that six lbs. of meat

meat does not require such long cooking as the 12 lbs.; the beef on the outside would be more cooked than that in the centre. *W. Hogarth, Esq.* 2 April 1852.

2178. I understood you to say that both could be equally done by a certain quantity of time being allowed?—That is quite certain; but if you take a very large piece of beef, the outside must be overcooked before the inside is done; and you must cook the inside before it will be done properly, so as to keep.

2179. Would it not be irregularly cooked?—It would be more irregularly cooked than a six lbs. case would.

2180. Lord *C. Hamilton.*] I understand you to mean that the exterior portion would be overcooked in order to allow for sufficient cooking of the interior, and that therefore the public would have so much of the article overcooked?—Precisely so; but I mean to say at the same time that there is no more difficulty in preserving a 12 lb. canister than a 6 lb.

2181. But in allowing sufficient time for fully cooking of the interior, you somewhat spoil the exterior?—Decidedly.

2182. Who determined the size of the canisters in the contract which you entered into with the Government?—The Government. It is stated in the contract.

2183. Am I to understand that you entertained the opinion which you have now expressed, with respect to the advantage of 6 lb. canisters, at the time you entered into this contract, and that you then expressed that preference?—No. I was once asked my opinion as to the propriety of abandoning the 12 lbs. canisters, and coming to sixes. I said the larger the canister the contractor was bound to put the meat in, the finer the animals he would be obliged to buy to do so. In putting up 12 lb. canisters, I procured all the heavy animals of 12 cwt., because they cut up the best for the big canisters; and therefore by abandoning the twelves and taking to sixes, it gave the contractor the advantage of using not such fine cattle.

2184. Supposing those sizes had not been dictated to you, should you ever have preferred supplying the Navy in 6 lb. canisters?—There was nothing beyond sixes made for the merchant service.

2185. Then the sizes of 9 lbs. and 12 lbs., namely, sizes exceeding 6 lbs., were dictated by the Admiralty?—It distinctly appeared in all their contracts the same as it appears in the one before the Committee.

2186. And you do not remember in any of your communications

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cations objecting to that, and pointing out that the public might suffer disadvantage from that arrangement?—No.

2187. Captain Milne, in his evidence before this Committee, was asked this question (Q. 572.), "Was it not the case that the contractors objected to that size of canisters?" Captain Milne answered, "Not at all; quite the reverse." And he goes on to state that the contractors proposed sizes up to 14 and 17 lbs.?—I never did.

2188. Would it not, according to your experience, always have been prejudicial to the public service to go up to that size?—I thought 12 quite big enough.

2189. Captain Milne was further asked (Q. 574.), "Those sizes were not proposed by you for the sake of economy?" Captain Milne answered, "Not at all; we consulted them," meaning the contractors; were you consulted when you entered into your contract as to the best size?—I was not consulted. I was asked, after going through one or two contracts, my opinion about abandoning the twelves and going to sixes; and I stated the advantage they had in keeping to the twelves, because it obliged the contractor to kill finer and heavier beef, as the smaller animals did not cut up so well for the large canisters. Then two months ago I was asked my opinion about the sizes, and asked whether I had any objection to take it in sixes. I wrote then stating that sixes possessed an advantage over twelves upon those two points, by the less liability to injury from a fall, and that a 6 lb. case is more equally cooked than a 12 lb. case.

2190. Though they never consulted you, you always entertained the opinion you have now expressed, that any excess over 6 lbs. was prejudicial?—No, I did not say that it was prejudicial; it depends upon the meaning of "prejudicial." I think Captain Milne must mean the other contractors. I believe they have complained of the size being above 6 lbs.; all except myself.

2191. You have stated that you supply the mercantile navy very largely; can you give the particulars of the last 10 years of the amount you preserved for the mercantile navy?—I cannot.

2192. *Chairman.*] The meats which you have supplied to the mercantile navy have never been of exactly the same character as those which you have supplied to the Royal Navy?—No, those supplied to the mercantile service have been very poor indeed, in comparison with those which have been supplied to the Navy.

2193. The meat which is supplied to the Royal Navy is of another

another description from that which is supplied to the mercantile service?—The quality supplied to the Royal Navy is very superior to that supplied to the mercantile service.

2194. Of a more solid character?—Of a much finer character; much more expensive meat.

2195. Mr. *Gwyn.*] How much a pound is charged for that supplied to the Navy?—The present contract is 7 ½ *d.*

2196. What is it in the merchant service?—It depends upon the quality of it; whether it is made of shins of beef or what.

2197. Mr. *Yorke.*] What should you say is the general price?—The cases are filled quite differently from those supplied to the Navy; in a 6 lb. case the beef for the merchant service is put in raw, 6 lbs. into the case, whereas a 12 lb. case for the Navy requires 16 lbs. of beef to produce you 12 lbs. of cooked beef; so that without explaining that, and making allowance for that, I could give you no analogy.

2198. *Chairman.*] The supply required for the merchant service consists of a variety of meats and soups, does not it?—Yes.

2199. And that for Her Majesty's service consists of solid meat, which is to be given out in rations as solid meat?—That is so; the canisters for the Royal Navy must turn out solid meat of the weight stated to be the weight in the case; a 12 lbs. case must produce 12 lbs. of solid meat, independently of gelatines; that is my present contract, and it requires 16 lbs. of solid meat, after being boned, to produce that; and it must be very fine meat indeed, or else 16 lbs. will not fill it, and it will run more to juice if it is poor meat than if it is fine; but the finest quality of meat will require 16 lbs. of boned meat to make 12 lbs. of cooked meat.

2200. Mr. Alderman *Humphery.*] What would it take in the supply for the mercantile service?—Six pounds of meat are put into the case; that is held to be a 6 lb. case of meat, but it often turns out to be only 4 lbs., from there being a great deal of juice in it, from the age and feeding of the animal.

2201. Supposing it is a 12 lb. case, how much is put in for the merchant service?—There is none in the merchant service put up in twelves; nothing above 6 lbs.

2202. And the 6 lbs. turn out 4 lbs?—A 6 lbs. ordinary case would turn out 4 lbs. of solid meat.

2203. What per centage of difference in the price is there between the merchant service and the Navy?—In the merchant service (I am not supplying the merchant service at present) they would have their supply at, I suppose, from 2 *d.* to 1 ½ *d.*

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per pound less than the Navy, when the one is at 7 ½ *d.* the other would be at 6 *d.* or 6 ½ *d.*; that is about 20 per cent.

2204. With respect to high and low priced meat I apprehend the process of preservation makes no difference; but the same causes of failure that would operate upon high-priced meat would operate upon low-priced meat, so far as the process is concerned?—Precisely,

2205. Can you give any statement of the average proportion of failures that you have met with in supplying the mercantile navy, taking both the failures from decomposition and the failures from the want of success in the process?—It is a very rare occurrence that I hear any complaints at all; I would say not one case in a thousand from the mercantile navy or in our own stores.

2206. Mr. *Yorke.*] Can you name any ships in the mercantile service that you have lately supplied?—I do not supply the ships; I supply the contractors.

2207. What contractors have you lately supplied with any meat for the merchant service?—I have not supplied any lately; since I have been contractor for the Navy I have been fully occupied with that.

2208. How long has that been the case?—For 12 months.

2209. What price used the contractors to give you per pound for any meat that you supplied to them for the merchant service before you became a contractor for the Navy?—For shin beef, 5 *d.*

2210. Was that the average price per pound?—I do not like to give the figures without my books; the contractors who were supplied by me would answer the question better than I can.

2211. *Colonel Chatterton.*] Had you any cases returned to you that you have supplied for the merchant service?—It is a very rare occurrence that I hear any complaints at all.

2212. Have you had any returned to you from the merchant service?—No; I have had complaints occasionally.

2213. But you have not had the meat thrown upon your hands again?—No; and it is of very rare occurrence, a complaint.

2214. How long are the meats supposed to last good in the merchant service?—I know of no particular time.

2215. You are obliged to guarantee them for five years in the Navy; have you any stipulated time in the merchant service?—Not any; they may be five or six years old before they get them; we draw no distinction in time, because we believe that

that they will keep as long as the canisters are kept in a dry place and do not corrode. *W. Hogarth*, Esq. 2 April 1852.

2216. Mr. Alderman *Humphery.*] Having had no complaints from the mercantile service, you presume that that meat, though it is not so good as that supplied to the Navy, keeps quite as well?—It is quite as good as to keeping.

2217. When it is turned out of the canister it is as good?—It is not so good, but it is as fresh and as sweet.

2218. Although the one may be nearly all juice, and the other all solid meat?—Yes; the finer the animal is the better the meat stands up to cooking; but as to the keeping it is quite the same thing. In fact, we can cure any substance you like to name, and ensure its keeping, to the merest fraction of a per centage.

2219. Mr. *Yorke.*] What is the price of the 4 lbs. canisters which you supply to the Navy?—A 4 lbs. case costs 5*d.* for the canister, and a 6 lbs. case costs 6*d.*; it is a penny a pound for the canister in largest size.

2220. The question refers to the price of the whole, including the meat, as well as the canister?—I have stated that in 6 lbs. cases it is 5*d.* for shin beef.

2221. Now, what for the prime parts?—I should say 6½*d.* would be the present price; but then you must take this along with you, that 6 lbs. of raw beef are put into the canister, and that includes the gelatine, and everything else in the canister; 6 lbs. of beef put into the canister would only turn out about 4½ lbs. such as the Navy get. That is cooked before it is put into the canister; the other is put into the canister raw.

2222. Admiral *Bowles.*] Do you put in vegetables with the preserved meat?—When it is ordered; haricot mutton, &c. with vegetables.

2223. Do you find any difference in the preservation of meat, when vegetables have been mixed with it?—Not the least; the one will keep as long as the other.

2224. Mr. *Yorke.*] Then the article which you produce for the mercantile navy is not the same kind of thing which you sell to the Royal Navy?—It is not the same.

2225. Therefore you cannot draw any comparison between the two?—No; I cannot.

2226. Colonel *Chatterton.*] What is shin beef; do you put in any bone?—No; but we cut the meat off the shin; which we can buy at 1½*d.* a pound.

2227. Mr. Alderman *Humphery.*] When you say 1½*d.* a pound, that is bone and all?—Yes.

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2228. Lord *C. Hamilton*.] You send a great deal of salmon to India?—Yes.

2229. Is not that even more delicate, or fully as delicate, as meat?—Fully as much.

2230. Have you ever had any complaints of it?—Never any complaints.

2231. Till the present year, when you have had a considerable rejection of meats, which you have delivered to the Admiralty, you have not met with such rejections?—I have not.

2232. Do you consider the system of examination of the meat to be more strict, at present, than it was in years past?—It is more strict by far than it was this time last year; they open now one and a half per cent. sometimes; then they did not open one-half per cent. It is a very severe thing upon the contractor, who is not paid for those goods; out of about 30,000 lbs., which I delivered, there are 500 lbs. opened for sample generally.

2233. Mr. Alderman *Humphery*.] What became of that?—I do not know; I may take it away if I please.

2234. Do you take it away?—I do not know what is done with it; it is of no use to me.

2235. Lord *C. Hamilton*.] Am I to understand that when all that is opened is found good, and the remainder is passed unopened, you still have to lose that which is opened?—Of every delivery so much is opened; and now it runs to one and a half per cent.

2236. Supposing that is found good, and the whole quantity offered is accepted, is no allowance made to you for that which is spoiled by being opened?—Not one farthing.

2237. Is that a practice which has obtained lately, or was it always so?—It has obtained ever since I sent in goods; but it is carried to a much greater extent than it was before all this row about bad meat.

2238. Shall you not in future contracts feel it necessary to make a stipulation about the quantity of canisters to be opened?—Certainly; it is equal to one and a half per cent. upon the value; it was not calculated for under the present contract, because it is an immense increase.

2239. Supposing fermentation has commenced, and the gelatine has become sour, do you conceive that if it is subjected to the process of boiling over again, that may be checked?—No doubt; you may make your canister to keep as long as you like, but still it will not be good; it will retain its sourness, but you may check the fermentation so completely that

that the external appearance will not show that there is anything wrong.

2240. Supposing you saw from the external appearance of the canister that decomposition had commenced, you could, by having it taken out and reboiled, and put into new canisters, check the fermentation so completely, that no external examination could detect it, and yet the meat, though it would keep, would never be good?—Precisely so.

2241. Mr. Alderman *Humphery.*] What becomes of the quantity, amounting to one and a half per cent. which is opened and spoiled; is it returned to you?—I may take it away if I please, but it is of no use to me to take it away, my manufactory being 500 miles away.

2242. Mr. *Yorke.*] But it is eatable?—Yes, or else it would be rejected.

2243. Lord *C. Hamilton.*] If the animal has not been properly bled, what appearance would that fact produce upon the gelatine?—I expect the gelatine would be muddy.

2244. And that would be obvious at once upon opening the case?—I think so, but there is one thing to be attended to in opening a case; if they shake the contents of a case out they shake the blood, which would naturally be separated from the gelatine; if the case is opened and the contents are taken out without shaking, you find the blood at the bottom and the gelatine at the top, and then comes the fat; much care is required in the shaking out, which is the usual way of opening cases.

2245. You think it possible that owing to the shaking, which one of the witnesses said was the ordinary way of commencing to test the quality of a canister, and the subsequent rough way of turning out the contents, a bad appearance might be given that which was previously good?—It would shake the blood which was at the bottom, and ruin the appearance of the jelly.

2246. Has it never occurred to you that you should have somebody present at the opening of the canisters?—If I were present I should not be allowed to interfere; I am not allowed even to unpack my own canisters.

2247. As you send so many thousand pounds weight to different places, have you established any rules as to the way in which you pack your canisters in order to send them to Deptford?—Yes, we pack them carefully with straw, the same as I would pack china, or any tender thing of that sort.

2248. Have you reason to think that the same care is taken at the dockyards when they send them from Deptford to Clarence-yard,

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rence-yard, or to foreign stations?—I am sure it is not, because in no instance have cases of mine been found to go wrong at Deptford, while I find them immediately afterwards at Gosport; there are some defective cases of mine which Mr. Grant the controller has, which will show that the bottoms have been ground out of them; if I am to believe the report I have heard, they were sent down in an open truck, and there must have been sand in the bottom, and that of course would grind out the bottom of the cases; that may or may not be the case, but they are ground out, and they will speak for themselves.

2249. Can you produce them?—I wrote and asked Mr. Grant for them yesterday in case the Committee might wish to see them to-day; he has not answered the letter, but they are in Somerset-house, I believe.

2250. Do you know what process is used in packing your canisters in the dockyards?—I have not seen them packed.

2251. Do you think that sawdust would stand in the place of straw?—It would depend upon when the sawdust was put in; if the sawdust was put in along with the cases so as to come between the edge of one case and the edge of another it would do very well; but if they put in the cases first, and then put in the sawdust afterwards, letting the cases touch each other, then there is nothing between them to take off the blow.

2252. Have you reason to believe that the process you have just described is followed in the dockyards?—I have heard it so stated; but I have not seen it myself, and therefore I would not like to say that it was the case.

2253. Admiral *Stewart.*] Do you say that no canister of yours delivered at Deptford, and not yet issued for use, has been found in a state showing that the meat will not keep much longer?—I have seen none.

2254. Nor have been told of any?—Nor have I been told of any. I have every reason to believe that the stock at Deptford was examined at the same time as the stocks at Devonport and the Clarence-yard, where there were some canisters found wrong; but at that time there were none found wrong at Deptford.

2255. For what length of time, with fair treatment, would you insure your boiled beef to last, keeping in any climate?—I do not know any limit to it. I saw beef the other day which had been 17 years, and it was as good as the day it was made. I have a canister of beef in London just now, a

12 lb.

12 lb. canister, which I have had made since 1850, one of Mr. Powell's, with the label on it, and which I put into a proving loft at the heat of 80°. It can be produced to the Committee if they please, and they will see that the quality and condition of the meat are perfectly good. A fortnight is sufficient to destroy a canister that is not sufficiently cooked; the cooking is of more consequence than the hermetical sealing, but both are necessary; we may detect a canister that is bad from a flaw in the case, on examination when cold, but we have no means of detecting the meat not being sufficiently cooked till it goes wrong.

2256. *Chairman.*] Then fermentation would take place, and the canisters would bulge?—Yes, the canister would bulge; that is the first intimation that is given.

2257. Colonel *Chatterton.*] You have a small aperture in the top of your canister?—Yes, they must all have that. There is a small aperture out of which the steam is allowed to escape at boiling heat, and then shut up again.

2258. What is that covered with?—A single drop of solder.

2259. Mr. *Yorke.*] Did I rightly understand you to say that you could not test the meat after it has been cured?—No; I meant to say that we have no test but the proving-house, of the meat not being sufficiently cooked inside.

2260. What is the period at which you would put the meat so cooked into the proving-house?—The extreme period would be a fortnight.

2261. You think the meat should be tested immediately after being cured?—It is the only way to ascertain whether it is sufficiently cooked. I say a fortnight will spoil any meat that will not keep.

2262. Colonel *Chatterton.*] You mean that if it lasts good for a fortnight it will keep good for an indefinite time?—If it is put into a certain heat.

2263. Mr. *Yorke.*] Supposing another gentleman has said that a fortnight will not do, but that meat cannot be tested under six months; you do not agree in that?—I know it is absurd. I state a fortnight as the extreme; a week at 80° heat is sufficient to test it.

2264. The question that was put to Mr. Dangar is this: "Would you recommend so long a period as that to elapse before the testing took place?" "I would; frequently in the London testing-houses they test the meat immediately after the preservation of it; I think that is not sufficient; I do not think the decomposition takes place so quickly as that." That you say is absurd?—I would put it in the proving-house

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house the day after it is made, before I painted the case or did anything more with it.

2265. He is asked further: "Do not you think it is sufficient if you allow the meat to become thoroughly cool before the testing takes place?" He says: "I do not think it is; the canister is merely opened, and then the meat is tested." Do you agree in that?—No. I do not think that gentleman can be a practical manufacturer, because it can be tested the next morning as soon as it is cold; we test it by the thumbs, to know whether we have got a complete vacuum. But we have no test without opening a case, but the proving-house, to secure us against the meat not being sufficiently cooked. I open one of the cases, and cut it through with a knife; that is another way I test it.

2266. Admiral *Stewart*.] Are you aware that the meat has been formerly supplied in canisters of 30 lbs. and upwards?—I have heard so.

2267. Did you ever try it?—Yes; I put up a round of beef of 30 odd pounds myself.

2268. With satisfactory results?—Yes; the great objection to the large cases is their own weight in case of a fall.

2269. But there is no difficulty in the preserving?—No difficulty whatever. The principal matter is for a man to see the process with his own eyes, and to see that sufficient time is given in the cooking. The canister will always speak for itself as to tightness; if those two things are attended to, the thing is perfectly certain.

2270. But the larger the pieces of meat the longer the time they require in preparation?—Of course.

2271. Is there not a danger of the interior not being sufficiently cooked?—It must be cooked sufficiently.

2272. You have said that the exterior of a large piece would be over cooked; then do you remove the exterior in that case?—No; I never see it after it is cooked; it is cooked in the case after it is closed.

2273. That is a reason against preserving large pieces?—That is one of the two reasons I gave in favour of the smaller case, but there is no difficulty in either way.

Edward Moore, Esq., called in; and Examined.

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2274. *Chairman*.] WHERE do you reside?—At Ranton Abbey, in Staffordshire.

2275. Do you occupy land there to a considerable extent?—I do, under Lord Lichfield.

2276. Grazing

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2276. Grazing land?—Grazing and pasture land. I am carrying on there the preserving of milk for the Navy; and that has brought to my attention the science of preserving animal matter.

2277. How long have you carried that on?—It is now about five years.

2278. What annual quantity of milk have you thus preserved?—We have consumed many thousands of tins; I have put up about 50,000 tins a year.

2279. In what sizes?—Pints and half-pints; it has been very much used by the merchant service and the emigration vessels, and the Government have also used it especially in the Arctic expedition. This experience has given me much information which I thought might be of use to the Committee, and I mentioned to Lord Talbot that some little time ago I took the trouble of inquiring into the mode of preserving animal matter, with the view of offering a contract to the Government for the supply of food.

2280. Milk or other food?—Other food; and I found that such extraordinary things existed in the trade that it made me search more deeply into it. Upon the scientific part of the subject I have engaged myself very materially. The first thing which I was anxious to ascertain was the different methods in which each manufacture was carried on. First of all, I must say the principle would be, that every fibre of the meat should be subjected to that degree of heat which should carbonise or decompose the surrounding air; therefore the process which would most readily do that was the process which I conceived to be the best. But the practical evidence which I obtained with regard to that was so perfectly ridiculous that I could not act upon it at all. For example; I went to Mr. Lusk, who is a very large dealer in provisions, not himself preserving; and I asked him what, in his experience, with regard to these meats he had found to keep the best; under whose patent or under whose plan. He said, "We have for years used Ritchie's and Goldner's meat, and we have never had any complaint of it; that is the meats I recommend." I thought I would go to another, so I went to Mr. Fisher, of the firm of Finnis & Fisher. I had a long interview with Mr. Fisher, and he said, "The meat I recommend is that of Mr. Moir." I inquired of three or four more, and at the end of that part of it I found that the evidence was so contradictory that I gave up all idea of acting upon it; in fact you could not rely upon it, each man had so much to propose and to recommend. Then I determined that I would ascertain

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ascertain the science of the matter clearly. I previously had an interview and conversation with Mr. Faraday upon the subject of preserving animal matter, and with other friends, men who were in the profession when I was living in London, and I must say that I came to the conclusion that the scientific process is under Goldner's patent; I do not think there is a doubt of that; I think if the Committee were to examine well into the scientific part of the question, they would have no doubt of that plan being the most certain. You will, perhaps, ask me to say why. It is necessary, as I was saying just now, to preserve animal matters, that a certain degree of heat should exist to decompose the air, because the presence of air will decompose animal matter, and the presence of water will also decompose animal matter. Now Goldner's principle is to put those masses of meat into a tin, and the tin is placed in a vat of a certain depth; he then puts a solution of muriate of lime and water, and covers it over with a surface of fat, so that the tins are all standing in a bath of water and muriate of lime, with oil or fat upon the top; then steam is thrown into the vat, and the contents are heated, and when he sees a jet of steam coming up a little aperture at the top of the tin he immediately condenses it by a small piece of sponge, and puts on a hermetical seal; therefore, upon that plan, no air can exist in the tin.

2281. Lord *C. Hamilton.*] Is that the whole of his process?—Yes.

2282. Does not he subject it to further heat?—No.

2283. There is one escape of the gas or steam, and it is then soldered and taken out?—Yes, it is done.

2284. Mr. *Miles.*] To what heat is it subjected?—It might be done at 212°, but, with the presence of muriate of lime and water, you may bring up the temperature 50° more; it is the same as salt, which is a muriate of soda; if you put salt into the water, you boil your potatoes better, because you get a better heat; it is hotter; that is a very simple principle.

2285. Lord *C. Hamilton.*] Steam is introduced for the purpose of raising the heat; that is done gradually?—Yes.

2286. Therefore those tins are put in at a low temperature?—Yes.

2287. Then you mean to say that the first escape of the gas or steam is a sign for the immediate ceasing of the operation?—No, there must be time for the meat to be cooked.

2288. You said that when the steam is seen to come up, immediately a sponge is applied: how does he know that the meat is fully cooked, when at last he does stop the operation in

in the manner you have described?—He does it simply in this way; that if a pound of meat is there, he knows, of course, how long a pound of meat will take cooking, and therefore he takes it at the exact period when he knows the thing is done.

2289. Are all those canisters put in together of even sizes?—Yes.

2290. He does not judge whether the process is complete by the escape of the steam, but by a calculation of the time, which calculation of time must include a knowledge of the exact amount of the heat?—Exactly; the tins are in the bath, and when the period arrives when the cook from his experience knows that the meat within is sufficiently cooked, he sees this little jet of steam going up, therefore there can be no air inside. It is a very simple process, and a very pretty one. He has in his hand two distinct things; in one hand is a small bit of sponge with a piece of solder, and in his other hand is a hot iron, and he just condenses for an instant the steam, which stops its coming up, because if the jet of steam came up he could not put the soldering iron upon it, because it would blow off the solder; so that with one hand with the sponge he condenses the steam, and at the same instant he puts on the solder. That is Goldner's plan. Then he puts the canisters into what is called the proving room, which tests for a time, in a certain heat, to see whether they bulge, or whether the cans remain in the same state, and then they are sent out.

2291. In doing a great quantity in this manner, must it not require very great nicety to do them all at the same time, because if there is a large number of canisters to be done at the same time, and each of them is giving off its steam, by the time he comes to the end of the quantity, will not some of them have ceased to send up steam, and will not the air be admitted?—No; as long as they are in this bath, when once the steam begins to go out the atmospheric air cannot enter. I have seen them at work; they have done perhaps 1,000 canisters in the course of half an hour, or very little more.

2292. If the steam had ceased to be given off, of course the atmosphere might have gone in, and then the process would be of no use?—Certainly; but it cannot be, because the whole bath is at a temperature that keeps up the temperature of the tin within; and allowing that there is a liquid substance, still the atmospheric air must come out.

2293. Supposing 50 canisters are subjected to the process at the same moment, the man commences with Number 1, and by the time he gets to Number 49, Number 49 must of course have

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have had much more cooking than some of the preceding 48? —Yes; but that makes no material difference; besides, that may be obviated by two or more men going to work, so that no evil can come from it.

2294. Is not it so nice a process as always to require the manufacturer's own presence; is it not one that could not safely be left to subordinate persons?—I do not think so; I do not see that at all. It is impossible, unless the men take the tin out of the bath, that the atmospheric air can enter those tins when once they arrive at boiling point.

2295. Is that the object of the fat?—No; the object of the fat is to prevent the boiling of the water; it is a very ingenious plan; fat will not bubble up like water under a temperature of 500°; and therefore this floating fat keeps it quiet below, so that the man's hand is not subject to the steam and to the bubbling of the water in the act of boiling.

2296. *Chairman.*] Therefore you imagine that as long as the meat is thoroughly cooked within the tins, a little more or less cooking will not signify?—Yes, that I think is the advantage of Goldner's plan. Then, again, this plan secures that the meat shall be fully cooked; if you cut it through you see that the meat is thoroughly done; now its not being thoroughly done would cause it to decompose, and therefore that is done under Goldner's plan with a great deal of care and a great deal of attention. The internal fibres of the meat have been at 212° of heat when the can has been hermetically sealed. I believe the evil which the Government have been guilty of, is in requiring these men to give them too large pieces of meat, because we know that the best cook will not always do her meat through; and therefore if this meat has been put into a canister, although the surrounding air in that canister is 212°, which decomposes atmospheric air, the internal part of that meat may not be at that temperature; therefore decomposition will take place from within; it may be arrested when it gets almost to the exterior, but not completely arrested; it would go through the greater part of it.

2297. Lord *C. Hamilton.*] Is not it mainly obviated in the way you describe as part of Goldner's system, in increasing the heat gradually?—I think it is less liable to that in his process than in any other I have inquired into.

2298. Mr. *Miles.*] When the meat is taken from the bath is it allowed to cool before it is put into the testing house?—Yes, particularly where there are pieces of meat in one large solid lump; they put them upon the stones and throw cold water upon them to occasion a very sudden collapse, because the

the hot air is expanded within. By throwing cold water suddenly upon it it becomes condensed and draws in with it the tin. You see that some of these tins now before the Committee have a concavity.

2299. The water is thrown upon them of course immediately they are taken out of the bath?—Yes, when they are hot.

2300. How long a time after that are they allowed to remain before they are put into the testing house?—Merely long enough to cool.

2301. What time does that take?—I should think 24 hours for the whole mass to cool.

2302. How long are they subject to the testing house after that?—It depends upon the size of the meat; I understood from Ritchie that he keeps it there sometimes two weeks; but sometimes, when he has had large masses there for 48 hours or 50 hours, the tin began to bulge, which always told him that the meat was decomposing.

2303. Of course the time he keeps it in the testing house depends entirely upon the size of his canisters?—Yes, and the size of the meat within.

2304. Have you been to any other manufacturers of preserved meats to observe their processes?—I have never seen the processes, but I know all their processes; I have examined into all their processes with the exception of Mr. Gamble's; Mr. Gamble seemed to have some secret which he did not choose to let out.

2305. Do you know anything of Mr. Hogarth's?—Yes, I have understood what his plan is.

2306. *Chairman.*] You know it by report?—Yes.

2307. Lord *C. Hamilton.*] Do you know anything of Mr. Gillon's process?—Only by report. I can state to the Committee what I have heard; but I would not say that the Committee should take the evidence that I give as facts, because I may have been deceived. But when I set out in the inquiry, having got into this patent of preserving milk, I began to think of the other subject, and finding difficulties in my own, of course it made me look into the scientific part of this mode of preserving animal matter.

2308. You said that you had a decided opinion and a marked preference in favour of Goldner's process; hence arises the question, have you had fair opportunities of forming a satisfactory judgment of other and rival processes?—I have.

2309. But you say that you have not seen them, and that you

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you have heard that some of them have secrets which they do not wish to divulge?—Yes.

2310. Then are the Committee to understand that you think you have seen into the secret, and formed an opinion upon its merits?—Most decidedly; because if you ask any of them, for example, if you ask Mr. Best (who would be a very valuable witness), Mr. Best will tell you what a simple plan it is. They have all the same simplicity. But I do not think it always answers. He will be able to corroborate what I am able to state, which must be mere hearsay, of the mode in which Mr. Hogarth puts up his meat, and in which Mr. Gamble puts up his meat, and in which Mr. Cooper puts up his meat.

2311. Admiral *Bowles.*] Do you think that if the Government were to determine to manufacture their own preserved meat, they would find the least difficulty in obtaining people who would be able to do it?—Not the least difficulty in the world; but remember this, it is not the plan of putting up the meat which has been so faulty; all these plans will answer with more or less certainty if they will only put up proper meat; at the same time I do not think that any of them come up to the scientific principle which exists in Goldner's. The principle upon which all those men go in opposition to Goldner's is this: that if the contents of a tin are submitted for a certain amount of time to a certain degree of heat, the air within the tin is decomposed—carbonised, to use a common term—therefore the animal matter will not be influenced by it; and that is what they do; one of them puts the meat into an oven and cooks it, and when he knows that this meat is properly cooked, when it has been properly done for a certain length of time, the tins are put into a great boiler and boiled for a certain number of hours, and there is an end of it. It is the same with my own process. I know that if I put one of my tins into water and I boil it quickly and rapidly, the thing will not be properly done, because the whole of the mass of milk within it will not attain to a sufficient degree of heat; but if I put it into a copper and apply a slow degree of heat and bring it up for a certain length of time before I begin to put it at the boiling point, and I keep it boiling 10 minutes, then the thing is perfectly done, but if it is rapidly boiled, then the interior will not have been done thoroughly. It is ridiculous to talk of the common way of doing it as a science; it is not a science, for here are these things put into the water, and you may do it in almost any way that you choose with a great degree

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degree of certainty; some may answer very well, others turning up badly; but if you do it scientifically, according to Goldner's plan, I believe you will never be without the tins being quite secure and quite right, because it is impossible for air to be in it, and it is impossible also, if the meat is well cooked, that a change can take place in that meat, if it is good meat when it is put in.

2312. Mr. *Miles.*] The evidence which you have given as the result of the inquiries which you have instituted relative to these preserved meats, goes to show that there is no great fault in the scientific principle which has been acted upon, but that the failures which have taken place are to be ascribed rather to faults in the meat which has been put up than to anything else?—Quite so. I could give you most dreadful accounts of different people, from the investigations which I have made of the things, which have come out. For example, a gentleman who was before the Committee; I believe you have heard that he gave an order to a certain man, "Go into the market, and then when meat is a certain time, within a day, of condemnation," (because there are persons who condemn bad meat), "bring it to me, and I will buy it." I go to another man, and say to him, "What a fuss this is about preserving meats. If you are fools enough to go and take a contract for preserving meat when you cannot buy it at the price, you must either be rogues, or you cannot do justice." I said to him, "At what price can you put up meat that is good?" I said, "Remember, flesh meat; I will not have any bone." He said, "About 3*d.* a lb." I said, "How is it possible for you to put up flesh meat at 3*d.* a lb. when you buy the animal at 4*d.*?" "But," said he, "we can get it at 3*d.*" I said, "You can get it at 3*d.*, but what can you get? It must be condemned meat, which nobody else will buy. For instance, if the beast is put at 5½*d.*, you must take away the bone and put another penny on it for the flesh, and then an honest man may do it." That is to say, if the meat is 5½*d.* a pound, he may put up the flesh meat at 6½*d.*, but certainly not at 3½*d.*

2313. Colonel *Chatterton.*] I understood you to say that you approved of Goldner's plan better than any other?—Yes; as far as regards the science.

2314. Do you still think it is the best plan?—Yes.

2315. Then how do you account for so much of Goldner's meat turning out so bad?—From its being bad meat, and I have no doubt whatever that the fine meat which has been shown to the Committee this morning from Australia, was put

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put up upon the principle of Goldner's plan. There is another point, which is very important with regard to this, and that is the condition of the animal. One of the most important points is, whether the animal is slaughtered when hot, or whether the animal is slaughtered in a perfectly temperate quiescent state. You may depend upon it, if the animal was slaughtered hot and feverish, that meat will not keep when put up, equal to the meat that was killed quietly, and put up. One day, when I was talking to Sir William Burnett, and to Captain Milne, I said, "You ought to do it yourselves, so that you may take care that the animals are brought into your slaughter-house, and allowed to remain a certain length of time before they are killed, that they are not over-driven, and have not been fussed through Smithfield Market."

2316. Mr. *Miles.*] Would it not be a very great advantage that the public should know that there was not only an inspection of the animal when brought to be slaughtered, but also an inspection of the animal after it has been slaughtered, and that if, at the expiration of a certain period of time, that animal should show any disease, it should be returned upon the contractor's hands?—Certainly.

2317. Admiral *Bowles.*] How can that be done at a public establishment?—If a man has the least knowledge of beasts, he can easily find out what is the health and state of the beast when he buys it.

2318. Mr. *Miles.*] Take any large number of animals driven into Smithfield Market, is it not certain that many of those, even though they may be good animals, may be in such a state that they would not be proper for preserved meat?—I am quite certain of that.

2319. Colonel *Chatterton.*] Then London is a bad place for preserving meat?—Yes. In the first place there is a great temptation to roguery in putting up preserved meats in London, because they have the power of getting bad meat; my proposition to Captain Milne or Sir William Burnett was, that it would be just as important to the Government to have an establishment in the country, in some part where meat was to be got plentifully and without driving, and where it might be put up at a reasonable expense, and where there is plenty of cheap fuel, and where they could get tins, and so on; that that is just as important as to be putting up an establishment such as they have put up at Deptford.

2320. Lord *C. Hamilton.*] It is clear that, if the beast has been over-driven or badly slaughtered, or otherwise ill-treated, the

the consumer would have a bad article; but can you point out generally what difference there is with respect to the causes of decay or fermentation, when the process has been gone through in a perfect manner, between the originally bad and the originally good meat?—By the fibre of the meat being injured by the fever which the animal is put into by driving.

2321. Will you explain what effect it would have upon the fibre?—Softening it. I do not think I am quite prepared to say that the meat would go into a perfect state of decomposition because it was over-driven, but when you opened those tins you would not have the meat so good. I do not say that, as a matter of course, if the animal is heated when it is slaughtered, the mass will go into a state of decomposition; but you will not have a good meat when you open it.

2322. But you were understood to say, that it would give it an increased tendency to decompose?—Yes.

2323. If the curing process is complete, does not it stop that which causes fermentation and putrefaction?—Yes.

2324. Then there is no greater tendency to decomposition in the originally bad meat than in the good?—Decomposition will not go on, but when you open the tin you will not get good meat; that is all I meant to say.

2325. But, in a previous answer, you seemed to conceive that the originally bad meat was more subject to decomposition than the originally good; and you said that it was by means of the softening of the fibre?—I do not think I stated that, as a matter of course the meat would go into decomposition because it has been hardly driven; what I stated was, that the meat would not be so wholesome or so good if it was put up when the animal was heated and over-driven; and I gave that as evidence of the necessity of the Government having a place of their own where the animals might remain quiet, and where you might be satisfied that the meat is good when you open the tin; not merely not decomposed, but good.

2326. I understood you to say, with reference to the known failure of Goldner's process, that you attribute it very much to the state of the meat when it was put into the canisters?—I did not mean to state that. The other day I was present when they opened some at the Admiralty, and it smelt a little.

2327. *Chairman.*] Whose meat was this?—I forget.

2328. When was this?—In January last.

2329. Where?—In Mr. Grant's room. I was there when they opened some tins, and what I meant to state is, that this meat being strong and bad, goes to prove that that meat,

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when put up, was in that state in which we found it when we opened it; because if it had gone into decomposition at all after it was put up, it would have gone on to the fullest extent, and have become rotten. Therefore it was as clear evidence as possible, that the individual who put up that meat put up meat which he had kept so long that it could not be sold, and that therefore it was put into that canister.

2330. Is not that the case with any of the plans that will preserve meat?—Yes.

2331. All those plans stop the progress of decay if it had commenced?—I am not quite satisfied that, if tainted meat is put up in the way in which others put it up, it would stop the decay.

2332. *Chairman.*] Your opinion goes to this extent, that good meat will be more likely to keep than bad, even under this process?—Yes.

2333. Mr. *Yorke.*] If the animal itself had any sort of disease about it, and the meat was put up in canisters, having been cured under Goldner's process, would not those canisters contain the germ of putrefaction, so as to become bad within a larger or shorter time?—I do not think they would; I believe that, under Goldner's process, the decay would be arrested, and there it would stop.

2334. You think that Goldner's process is so antiseptic as to arrest putrefaction in any stage?—In almost any stage, if well done.

2335. And that, though the meat might turn out not good, it would not be necessarily putrid?—Not if it was properly done.

2336. Could you say the same of any other process?—I do not think I could; there is a great difference between carbonising atmospheric air and expelling it.

2337. Lord *C. Hamilton.*] When once the element of decomposition is introduced, will not the process of decomposition go on both in the good and in the bad meat?—No; if you put in perfectly good meat, and there is no decomposition commenced in the meat, you may keep the meat when preserved perfectly good, and when it is opened it may remain open so for some little time, whilst a person is consuming it, and that is perfectly good food; but if you put up bad meat, and that bad meat is opened, although the decomposition has been arrested by the process in which it is put up, the very instant it is exposed to the atmospheric air it goes quickly into decomposition.

2338. The process of decomposition would have been thoroughly

thoroughly stayed till the introduction of a new element of decomposition, which would destroy the originally bad meat, and render the good liable to decomposition?—Yes; probably what you want to arrive at is an explanation of the fact of this rotten stuff being found under Goldner's patent; all I can say upon that matter is, that I have my belief that the meat put in there was not meat at all. That is plain; and the way in which he made money was extracting out of the meat all fat, for which he could get a greater price than lean, and then putting in this lean dried stuff in such a state that hardly any process could arrest the decomposition.

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2339. You do not approve of the practice of Mr. Goldner so much as of his process?—Certainly not. One of course ascertains all these facts before one begins to reason on these things; and the next inquiry one makes is, what could induce the man to do it; and you find that he can sell the fat at a greater price than the lean. Then you open one of these tins, and you get nothing but fibre out of it; and that leads you immediately to inquire, "How does it answer this man's while to put up this fibre, such beastly stuff as this, and to call it meat?"

2340. Mr. *Miles*.] Supposing that Goldner carried on at the same time the manufacture of tallow, I would ask you whether the state in which you saw Goldner's meat was such as would have been the result if it had been boiled down for the tallow, and all the fatty particles taken away from the meat?—Exactly; that immediately came into my mind and my conviction. When I saw this meat I asked the question pointedly, whether Mr. Goldner had any other means of getting rid of his fat, and they said, "Oh, yes; the fat is sold; the bones and hide are thrown into the Danube, but the fat is sold, and he gets 3 *d.* a pound for it."

2341. *Chairman*.] From the inspection which you had of that meat when you saw it opened, do you think it was reduced by the process which extracted the fat into such a state that when it was put up it was not fit for human food?—Certainly.

2342. That is the opinion which you have formed as the result of the great attention and the scientific investigation which you have applied to this subject?—It is. There was no Committee then sitting. My object was to give Sir William Burnett and Mr. Grant as much information as I could, and I endeavoured to obtain this information as well as I could do it.

2343. At what period was this?—This was in a conversa-

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tion which I had about the end of December last, when the first large condemnation turned up.

2344. During the time that the survey was going on at Portsmouth?—It was just at the commencement; I think it was the first day that the news had arrived of the condemnation of a great amount of these foods.

2345. Do you know where the canisters which you saw opened had come from?—No, I have no notion of it; I think there were some Australian ones also, which were very good; and there were some of Hogarth's which were very good; and there were some of Cooper's which, if I recollect rightly, tasted a little; I do not remember any others. I was in the room then but a short time; I happened to be talking with Sir William Burnett, and Mr. Grant said, "Will you come in and look at these things?"

2346. Though they were in a somewhat deteriorated state, you imagined that at the moment they were opened they were in the same state in which they were when they were put up; and that the process of decomposition had been stayed by the process of preservation?—Yes.

2347. Do you think that meat which was in a bad state when it was submitted to the process, would, upon being opened, decompose so very fast that before it could be issued to the men, it would become unfit for food?—It would be perfectly useless as food. I will not say that it is unfit for food, because there is, perhaps, a great difference of opinion whether the fibre of meat, or whether the albuminous part of meat, has the greatest amount of nourishment; and those who are convinced that the fibre of meat is necessary for nourishment, which I believe is Liebig's view, and those who take an opposite view, would differ very much in answering that question. I should say at once, that it is of no use for human food.

2348. What I wished to know was, in what length of time you think that meat that had been in an incipient state of decomposition when it was submitted to the process of curing, would, when opened in a hot climate, or in a summer heat, go to decay?—In a couple of hours.

2349. In an hour or two it would be unfit for use?—There is no doubt about it.

2350. But that would not be the case, even in a hot climate, if it was perfectly good when it was put up?—Certainly not; it would keep as well as any other meat. I recollect now that Hogarth's plan is cooking the meat before he puts it into the tins; all his meat is cooked, and then put into tins and

and subjected to the process. I have heard Mr. Grant say, that Goldner's plan answered remarkably well as long as he was honest; it was only the temptation to be dishonest that made his plan not answer; that for 10 years it answered very well.

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2351. Lord *C. Hamilton.*] The Committee have had evidence that a large quantity of what was condemned was considered to have been originally good, and that, therefore, the failure arose from a defect in the process; but you seem to be of opinion that the whole failure has been from the defective state of the meat?—No. The whole failure has been from the enormous amount of his contract, and the almost impossibility to perform his contract, which made him heedless and careless in going through the process. With regard to my own process, as long as I looked after it, and did it in a small way, I never had a failure; but when I put it into the hands of a man to do it for me, I consider that I lost nearly 1,000*l.* by it, although I had instructed him.

2352. Had you not yourself to struggle through two or three years of experiments, more or less unsuccessful, before you succeeded?— Yes.

2353. Admiral *Stewart.*] You have seen a great number of the canisters opened of different manufacturers?—I have.

2354. Have you ever seen any in the same state as that which the Committee have seen this morning, from Australia?—Yes, repeatedly; many of them.

2355 *Chairman.*] Have you applied this process yourself?—Yes; I have made several experiments, and the experiments I have made have always been successful ones, when done upon Goldner's plan. I got 20 partridges, and I had them all roasted together at a proper heat, and I had them put up into canisters; those canisters were done according to the plans of Goldner, of Hogarth, and of Powell; and I found, in opening those, that the only ones that had kept were those that I put up where I had exhausted the air according to Goldner's plan.

2356. Do you think that you were equally well informed upon the others of those plans?—I think so; I have no doubt about it; if I were going to establish myself in putting up meat I should put it up under that process, if I could get it.

2357. How long after your putting up the partridges did you open them?—Three months; and the partridges were very good; one was eaten at Mr. Ihler's, a large provision merchant at Liverpool; he partook of them at luncheon.

2358. Have you tried to preserve other substances?—No, except milk and chocolate.

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2359. Has Mr. Goldner's process been some guide to you in the preparation of milk?—Yes, certainly. This is one of the tins (*producing the same*). If I had not that little hole there; if I, without this, soldered it down, I should not only have a difficulty in soldering it down, but when I came to open this I should have a little decomposition taking place in the milk from the atmospheric air; but by taking the hot iron round here, a small quantity of atmospheric air which is lodged upon this little sill is driven out by the hot iron through this little aperture; I stop that little aperture and I am safe.

2360. Lord *C. Hamilton.*] That is the concentrated essence of milk?—This is a gallon of milk.

2361. And that process is also a process which stops fermentation and decomposition?—Yes; because the water is taken away from it; that is a patent process for extracting water, which decomposes milk.

2362. You consider that it is the process of carbonising the air which secures the preservation of the meat?—That is the opinion of Professor Faraday. I recollect that I asked him, "What can be the reason that this thing will keep if I put it into a temperature of 212°, and it will not keep if I do not?" He said it was impossible to say; the air is carbonised and it does keep. It may either be owing to that, or else it may be that the expansion is so great that even the atmospheric air is driven out through the tin. I said, "I think that goes a little too far, to suppose that the atmospheric air can be driven out through tin."

2363. And yet not come in through the same aperture?—Just so; but there is this to be said, that the force within is greater.

2364. *Chairman.*] Have you anything further to suggest to the Committee?—It has always appeared to me that the Government ought to do this themselves, and that it should be in a part of the country where the beasts will not be overdriven, and where the beasts can be slaughtered coolly and quietly.

2365. You think there would be no insuperable difficulties in getting that done?—No difficulty whatever if you were to have it done in Staffordshire; there are about 14,000 or 15,000 beasts in that part where I am living, on Lord Lichfield's and Lord Talbot's estates; and there would not be the slightest difficulty in accomplishing it there, because coal is cheaply obtained, and tin also; tin is manufactured, and beasts are readily bought at a small value, as compared to what they are in London.

2366. Have

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2366. Have you ever considered at what price it could be done?—I have always said that it must be according to the price of meat in the market; but as you can buy it for 4 *d.* now in our part of the world, that meat ought to be put up at 5 *d.* or 5½ *d.* per lb.; that is, flesh meat, but you must allow them 1 *d.* for the loss of bone.

2367. Do you contemplate putting up the best parts of the animal at such a price as that?—Yes, the very best parts. I beg leave to mention one thing more; in putting up a case or two you may be very successful in putting large pieces of meat, but, taking it generally, I am sure the safest plan would be to put up small pieces of meat; although one canister may hold many pieces, it is more safe than putting up one large piece. If you want to put up 12 lbs. of meat in a canister it is better to put it up in 2 lb. pieces than in a 12 lb., for the reason I have stated, that you cannot be certain that the air within the cellular tissue of the meat has been decomposed by the heat which has arrived there.

2368. Lord *C. Hamilton.*] The coagulation of the albumen on the exterior would rather confirm that result?—Yes. Then again the meat being cooked in the tin is an advantage, because Hogarth takes away a great deal of the goodness of the meat, whereas by the other plan it is all in the tin. I have of course no interest in Goldner, but I cannot come to any other conclusion than that taking it as a means of nourishment, and as a system altogether, it is the best I have examined into.

2369. Mr. *Yorke.*] You have stated that Goldner's process of curing meats, combined as it is with a lime bath, is antiseptic to a certain extent, and that decomposition would be arrested by it?—It arrests decomposition certainly, but it is not the lime that does it; it is the process that does it, by the assistance of the lime bath, which brings this up to a greater degree of heat than you can do with water; if you put the tin into the fire you get the thing more readily done; but as you could not get at the tin to solder it up in the fire, this is a substitute for the heat of the fire.

2370. You consider Goldner's plan with the lime bath the best mode, whether it is antiseptic or not?—Yes.

2371. Then how do you account for such large condemnations of Goldner's meat?—Either from its being bad meat, or its being hastily and improperly done.

2372. You are aware that these have not been condemned as bad meats, but as putrid and decayed meats; now, preferring Goldner's process, as you do over all others, how

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do you account for such large condemnations of Goldner's meats as putrid meats?—It is fair to infer that if a man will put in bad meat he will not carefully go through the process of putting in good meat, and that improper and filthy stuff is put into those tins.

2373. Mr. *Miles.*] You were understood to say, that you believe that neither was the meat itself nor the process properly attended to?—Just so.

2374. Lord *C. Hamilton.*] You do not attribute it to any peculiar nicety required in his process, but to a general neglect of the process?—To a general neglect of the whole process.

Mr. *Benjamin Best*, called in; and Examined.

Mr. *B. Best.*

2375. *Chairman.*] WHAT is your business?—I am a Provision Merchant, and a Preserver of fresh Provisions at Holloway.

2376. Have you been many years in that business?—A great number of years, not less than 25 years altogether.

2377. Have you carried on that business a considerable number of years on your own account?—Not on my own account, only the last two years; but I was with Mr. James Cooper, the father of the present Mr. William Cooper, many years, and transacted the whole of his manufacturing business; I was always in the manufactory.

2378. What situation did you fill in the manufactory?—I was considered as the principal of the business; for Mr. Cooper took no part in it himself whatever.

2379. You were managing foreman?—Yes, for Mr. James Cooper.

2380. Mr. *Yorke.*] Are you a brother-in-law of Mr. Cooper?—Yes, of the present Mr. William Cooper.

2381. *Chairman.*] And you are thoroughly acquainted with the mode of preserving meats, according to Mr. Cooper's process?—Quite so, in every department.

2382. Were there other provisions besides meats preserved?—Bottled fruits of every description. My process was a different one from everybody else's; I never boiled the fruit; and it was very much sought after in the East Indies; our fruit always stood quite A 1; it never got mouldy.

2383. Are you now carrying on business chiefly in the preservation of fruit, or meats?—Meats only.

2384. For what purposes are those meats preserved?—For foreign and sea service.

2385. The

2385. The business is now carried on in your own name?—Jointly with Messrs. Clarke & Willmot.

2386. Do you supply any meats?—To the trade generally, and to captains; we have never had a Government order.

2387. Who have been your principal customers among the captains of merchant ships?—That is a question which I can scarcely answer. We apply to all the captains, as they come into the docks, and every now and then we get an order; we have not done a great deal, because we are very young in the business on our own account.

2388. When you say "we," who is associated with you in this?—I have two partners, Messrs. Clarke & Willmot.

2389. To what extent do you manufacture annually?—We put up a very large quantity every week; perhaps 3,000 or 4,000 pounds weight of preserved meats; sometimes more, sometimes less; we put up a great many red herrings too in cases; in fact we put up anything.

2390. Where do you procure the principal part of your meat?—From Newgate Market principally.

2391. Mr. *Yorke.*] That is a dead-meat market?—That is a dead-meat market.

2392. *Chairman.*] You say you have a peculiar system of your own; you do know Mr. Goldner's system of preserving meat?—I would not say that I know Mr. Goldner's system so perfectly as my own, but I know his system; the tins are open whilst the meat is being preserved; they are not done for so great a length of time as they are by my process, which I am more thoroughly acquainted with.

2393. In your process, is there any aperture?—None at all, not in boiling, but when the cases have been boiled a certain length of time, according to what the article is that is included in the case, they are taken out, and a soldering-iron is applied to each case, which opens a hole and lets the air out; if we do not do that the cases will burst. Then they are instantly closed and returned to the boiler and boil a certain length of time, according to what the article is; some take three, four, five, six hours, some more than that, very large cases.

2394. What do you call a very large case of preserved meat?—The largest I have ever done has been 12 lbs.

2395. Have you found in your experience that these meats have given satisfaction to your customers, and that they will keep under that process for any length of time?—Any length of time, as long as the case is kept free from damp and wet,

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so as not to get rusty, the contents will keep; it does not matter how long a time, twenty years if you wish.

2396. Have you cases that have been kept any great length of time?—In Mr. Cooper's business many that have been done by me have kept a great length of time; they have been sent to all parts of the world, and have come back again as good as they went out.

2397. Upon opening cases in which those meats have been preserved by the same process which you now carry on, have you found them perfectly good after a number of years?—Yes, perfectly good.

2398. Were those meats solid meats, or were they soup and bouilli?—Some solid and some soup and bouilli; some of them, perhaps, were roast beef, others were rounds of beef.

2399. But in all cases you consider your process the best that you are acquainted with?—I know it more thoroughly, but I would not say that Goldner's system is not quite as secure; I know his system, but I have not had the practice in that which I had in the other, but I should feel no difficulty in it.

2400. The knowledge of it has not induced you to change your system and to adopt Mr. Goldner's?—No, it has not.

2401. Have you ever seen any meat from Australia that has been sent to this country?—Yes, Mr. Dangar's.

2402. Has that been good?—Very excellent indeed; perfectly solid.

2403. Have you seen that which has been produced here to-day?—I have seen it, but I had seen some before that; I did not allude to this in particular.

2404. On those other occasions, had it very much the same appearance?—Very much the same appearance, all that I have seen.

2405. If that is done upon anything like Mr. Goldner's process, you think that is evidently a very satisfactory process for the preservation of meat?—I think so; Goldner's is put to a much greater heat than my system. If I were to put my cases to the strength of heat that Goldner's system puts them to, my cases would burst. Then his cases, when done by his system, are open at the top; during the process of preserving, therefore, the air escapes continually.

2406. But yours is a longer process?—Yes; it takes a greater length of time, but I think it is equally good. Mr. Goldner's, perhaps, appeared better, because they were not cooked quite so much.

2407. Is it the case that yours is more cooked?—Yes, it is, certainly.

2408. Is

2408. Is it more cooked than the Australian meat which you saw to-day?—I think not; I think that is done by my system. I do not think that is done by Goldner's system.

2409. Has it not the appearance of leaving an aperture at the top of the cases?—Yes.

2410. Colonel *Chatterton.*] Have you ever sent in contracts for supplying the Navy?—Many times for Mr. James Cooper.

2411. And which have been accepted?—Always. I never had a case sent back while I was with him.

2412. You have also supplied the merchant navy?—Yes.

2413. With the same success?—Just the same; I always adopted this plan, that all the cases that I preserved went through the proving-room previously to their being delivered; and I never suffered a case to go out of the premises till it had been a sufficient length of time to prove it in what we call the hot-room.

2414. *Chairman.*] For how long?—Not less than 10 days.

2415. Mr. *Miles.*] Were your meats which have been preserved cooled before they were put into the hot-room?—Yes, they were, but that is quite immaterial; you may put them in the same day that they are done, if you please; I do not think that would make any difference.

2416. You not only thoroughly understand the curing of these provisions, but you likewise have gone through the whole process of purchasing meats in the market for this purpose?—I have gone through every part of it, and have a complete knowledge thereof.

2417. At present you purchase your own meats in the market?—Yes.

2418. What description of meat, first of all, did Mr. Cooper put up?—We generally put up the fore-quarter with the fore-ribs out, taking the fore-ribs out, and using the legs and shins for boiling for making gravy; sometimes in making soup and bouilli we used clods and stickings, and those make the best soup and bouilli, in my opinion, of anything.

2419. Viscount *Newport.*] What are "clods and stickings"?—They are taken off the top of the fore-quarters of the beef.

2420. Mr. *Miles.*] Confining your attention entirely to preserved meats, what description of meat do you purchase for them; is it what is called best, or middling, or inferior?—What we always preferred for putting up was what we call good plain ox beef.

2421. That would be what is termed middling, would it not?—Yes, you might call it middling beef; fat beef does not

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not answer the purpose, it is too fat; the fat, in a great measure, melts in the case, and when the case is opened there is a large quantity of fat, which of course is almost useless. Therefore we much prefer good plain ox beef; we always make the best of every description.

2422. Did you invariably, while you were in Mr. Cooper's employment, purchase ox beef for preserved meats?—Always, when I could get it. It would sometimes happen that we did not mind purchasing the fore-quarters of a young bull; young bull beef is, in my opinion, quite equal to ox beef.

2423. Did you always avoid purchasing heifer or cow beef?—Always; I never would purchase one quarter of it, because there is no strength in the meat. A cow is never brought to market till she is good for nothing.

2424. What do you mean by "no strength"?—It is too old; there is no goodness in it.

2425. In the process of preserving these meats, do you find that cow or heifer meat shrinks very much?—Always.

2426. Can you state the difference of the shrinkage that would take place between different meats; first, take good ox beef, comparing it with heifer beef?—I think there would be scarcely any difference in that.

2427. Then taking ox beef and comparing it with cow beef, what would the difference be?—Cow beef will certainly shrink about a third; perhaps more than that; the difference between cow beef and ox beef is beyond all conception.

2428. In making a 6 lb. case of preserved meat, what quantity of ox beef should you put into it?—At least 8 lbs.

2429. What quantity of cow beef must you put in?—We should put in as much as we could get into the case; but even after it had gone through cooking, when we opened the case it would be reduced certainly one-third.

2430. You think it quite necessary, in making preserved meats, to have good meat as your foundation?—Most assuredly.

2431. Have you seen other contractors in the market, when you have been purchasing for Mr. Cooper, purchasing meat for the same purpose?—I have occasionally; but when I was purchasing for Mr. Cooper, sen. there was scarcely anybody else in London manufacturing preserved meat; but since that I have seen a great deal.

2432. What description of meat, generally speaking, is purchased for putting up these preserved meats?—I should say myself, as far as regarded myself, that I would not suffer the meat to come into my premises, taking the generality of it.

2433. Will

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2433. Will you state to the Committee, more particularly, what description of meat you have seen purchased for this purpose?—I do not know that I can describe it in a better way than by calling it the worst beef that can come into the market. Generally speaking, it was cow beef, a great part of it. Some of it would be ox beef, very old indeed, and very poor, which would be bought at a very low price.

2434. Comparing the middling beef which you used, and which you think the proper beef to be put up as preserved meat, with that which you have seen bought for so putting up, what would be the difference of price between the two?—I should think that very poor stuff might be bought for about a third of the price.

2435. Taking middling beef at 4*d.* a pound, what would such beef as you have seen persons buy for making these meats sell for?—Certainly not one-fourth of the money. In fact, I would not have it as a gift, much that I have seen on many occasions.

2436. Then do you attribute the failures which have taken place in preserved meats more to the quality of the meat put up, than to the failure of the principle, and the system under which they are put up?—I do not know that I could say that, because I think that bad meat may be preserved almost as well as good, if it goes through the process properly. I do not think there is much difference in that particular if the meat is sweet.

2437. Is it always sweet?—No, it is not.

2438. Is there not a vast quantity of heated meat and diseased meat occasionally sold in Newgate Market?—There is no question about it.

2439. Are the persons who buy that inferior meat for this purpose particular as to not purchasing diseased meat, or do they purchase that meat together with other?—I should say that they would purchase more of that than they do of the other; indeed it is quite disgraceful to see the meat carted away for the purpose.

2440. Is it such meat as, if it had come under the inspectors of markets, would have been condemned?—I think it would. I think if the inspector of the market had done his duty on many occasions, it would not have been suffered to be offered for sale.

2441. I understand you to state that you know that the persons who have bought this bad meat were persons who purchase for manufacturing these preserved meats?—Most assuredly;

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assuredly; they did not purchase themselves, but I knew for whom it was purchased.

2442. *Chairman.*] I understand you to say, that if meat is originally bad or tainted, though it may be preserved in that state, yet in that state, bad and tainted, it will remain?—Most assuredly the preserving will not turn it good; I think it possible to preserve even bad meat, meat that is even tainted; we have tried experiments to ascertain that fact.

2443. Mr. Alderman *Humphery.*] Did you ever try the experiment, when you found some that was bad, of taking it out and renewing the whole process?—No, I have not tried that; I do not think it would have any effect upon it.

2444. Would it not take away the smell?—Possibly it might, in a measure.

2445. Mr. *Yorke.*] Do you know of any mode of disinfecting food by charcoal?—I have done three or four cases. I use charcoal in this way: I tied my charcoal up in a cloth, and I boiled my beef for half an hour, and put this charcoal into the boiler at the same time. When I had done this for half an hour, I took my beef out and put it into cases. The beef did not appear to have the slightest difference in it. Whether the charcoal had any effect in preserving it I cannot tell. I have a number of cases now by me, which I did that way.

2446. When did Mr. Cooper make any tender for the Admiralty contracts?—I cannot tell that.

2447. Do you know that he has made tenders?—I know that he has made many tenders.

2448. How long were you in Mr. Cooper's establishment?—I was not with the present Mr. Cooper. The fact is, we could not agree as to the system of doing business; mine is very different.

2449. Were you lately offered a 6 lbs. canister of preserved meats?—I was.

2450. Did you examine it?—I opened it.

2451. What did it contain?—It contained beef and gravy; but a very small portion of meat indeed.

2452. Do you know at all what that gravy was compounded of?—I do not know what it was compounded of; but I am quite clear that it was not gravy meat.

2453. Are you aware that there is any particular preparation made for the purpose of filling up these preserved meat canisters, which are not gelatine itself?—Yes, I know it to be a fact.

2454. Do you know what it is composed of?—It is the skins of some beasts, but I cannot tell you what it is; I never used it.

2455. In fact, it is a glue?—It is a glue of some sort; I know that to be the fact; it is not gravy at all; it is done for the purpose of concealing the contents of the case.

2456. Was this a 6 lb. canister that was offered to you?—It was.

2457. Do you recollect what quantity of meat there was in it?—Yes, 3 ½ lbs. of meat.

2458. The remainder was this glue?—Yes; it looked very nice to the eye, but I am quite sure it was not the gravy of meat.

2459. Colonel *Chatterton.*] Was it wholesome, and good to eat?—It was not particularly unpleasant; but very different to what real gravy meat would be.

2460. Admiral *Stewart.*] You have supplied the merchant service?—I have, and given very great satisfaction to every one.

2461. The general supply for the merchant service consists of a variety of meats and soups?—Yes, in cases from one to six pounds, and soups and poultry and rabbits.

2462. Have you been in the habit of supplying to the merchant service solid boiled meat of the same kind and of the same weights as is supplied to the Navy?—We have.

2463. In what sized canisters?—Generally 6 lbs. canisters, because it is for feeding the sailors during the voyage.

2464. In the merchant service, do they issue it as rations or keep it for the sick?—They issue it as rations in cases of that size.

2465. That is boiled beef?—That is boiled beef generally; some is soup and bouilli in 6 lbs. cases.

2466. You said that fat meat is not fit to preserve, because the fat melts; you observed the cases which have been produced to-day from Australia, in which the fat is in a perfectly solid good state?—Yes, it is very good; I think that meat has a portion of salt in it.

2467. Would you think it an advantage to put salt to the meat?—I do not know whether it would be thought an advantage generally; I should imagine not, because the object always is to have fresh provisions.

2468. As to the preservation would it be of advantage to put salt?—Not at all, the salt would not tend to preserve it.

2469. *Chairman.*] Might not the salt tend to corrode the canisters?—It would. I am quite confident that by my process meats preserved will keep any length of time if the cases are kept dry; and that is the only reason for which we paint them, only for preservation.

2470. Admiral

Mr. *B. Best.*

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2470. Admiral *Stewart.*] What do you consider the principal distinction between your process and Goldner's?—The difference is this: his are done with the tops of the cases open; they stand in a boiler about three-fourths immersed in liquid; the liquid is heated up to a very great heat. I put up mine at 220°, and I think Goldner's is put up to from 250° to 260°, and that is one great reason that his is preserved in a shorter time than mine is. Gas is escaping constantly during the time of the preservation; all the gas gets out of the case whilst it is boiling in the liquor. Mr. Goldner's cases are soldered up whilst they are preserving in this liquid, which is a very dangerous process. Mine are taken out whilst the gas escapes and soldered instantly, and then returned to the boiler again for a certain length of time, according to the size of the case.

2471. Mr. *Miles.*] Taking into consideration what you have seen relative to the meats used for this process of preserving, do you think that if the Navy is to continue the use of these preserved meats on so large a scale as that in which they have been used the last few years, it is advisable still to go to private contract for the supply, or that it would be better that the Navy should manufacture them for itself?—I am very decidedly of opinion that it would be better for them to have a manufactory of their own.

2472. It is not a very expensive process?—No; there is no particular expense attending it. There would be this satisfaction, that it would be known exactly what was put up; that every article would be well known by the officers of the Admiralty, and of course everything would be under their direction; nothing would be used of any description but what ought to be used, which I am sorry to say is not generally the case, nor anything like generally the case.

2473. *Chairman.*] From your knowledge of the London markets, should you say that there was an efficient inspection carried on of the meats that are there sold?—I should decidedly say no.

2474. There are inspectors?—There are inspectors.

2475. But you think that those inspectors do not efficiently perform the duties which are assigned to them?—I certainly think not. There is a great deal of meat sold in Newgate Market and in Leadenhall Market which is not fit for use.

2476. Mr. *Yorke.*] Can you tell the prices of this inferior meat which is sold in Leadenhall Market?—It is sold at an exceedingly low price.

2477. Is

2477. Is it sold as low as 8 *d.* a stone?—I dare say it is sold at less than that. Mr. *B. Best.* 2 April 1852.

2478. Would you say that some is sold as low as 4 *d.*?—A great deal. It is worth boiling to get the fat and the bones out of it.

2479. Colonel *Chatterton.*] Are you in the habit of furnishing salt provisions as well as preserved meats?—No; I have nothing to do with salt provisions.

2480. *Chairman.*] Have you ever had much of your meat returned to you?—I have never had any returned; and the reason is this, because I never sent out any but what had been proved.

2481. Lord *C. Hamilton.*] Can you state what has been about the average quantity which has failed under the process of proving?—Very small indeed; perhaps out of 100 cases not more than one; because I am just as particular in preserving than as if they were not going through the process of proving afterwards.

Martis, 6° die Aprilis, 1852.

MEMBERS PRESENT.

Sir William Jolliffe.	Lord Claud Hamilton.
Sir Francis Baring.	Colonel Chatterton.
Mr. Yorke.	Viscount Newport.
Admiral Stewart.	

SIR WILLIAM G. H. JOLLIFFE, BART. IN THE CHAIR.

John James, Esq. called in; and Examined.

2482–2553. *Chairman.*] WHAT is the office that you fill?—Chief Clerk of the Contract Department of the Admiralty, and Registrar of Public Securities. *J. James*, Esq. 6 April 1852.

2554. How long have you held that office?—For 28 years.

2555. Is it your duty to prepare the contracts?—Generally it is.

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2556. They all pass through your department?—They do.

2557. Are the terms of those contracts for different articles from time to time revised?—Yes, according to the necessity of the case.

2558. Has that been the case with respect to preserved meats?—It has.

2559. Can you from memory, or from any memoranda that you have, tell us when a revision took place of the terms of those contracts?—I think scarcely any new contract has been made without some slight modification of the terms as to the mulcts, and excluding offal meat, and the strength of the canisters, and so on; the Committee have before them, I believe, a copy of all the contracts, and it will be seen how far they have been varied and modified.

2560. Between 1844 and 1850, the terms of the contracts for preserved meats were considerably enlarged?—Yes.

2561. Do you recollect at whose suggestion that was done?—The late Comptroller of the Victualling originated some; his chief clerk, Mr. Leyburn, originated others; I, myself, suggested some; Captain Milne proposed several, with the view of making the contracts more stringent than they had been.

2562. In 1850, this contract, the terms of which had been rendered, as you say, more stringent, was submitted to public tender?—Yes, to public tender.

2563. That had not been the case with the contract of 1844?—Not with the contract of 1844; but many previous contracts had been advertised.

2564. There was no contract for preserved meat between 1844 and 1850?—None: the one made with Goldner in 1844 being of a standing character, under which you might demand from time to time whatever quantities the service required.

2565. And that was a running contract up to the contract of 1850?—Yes; it expired on the 1st of April 1850, a warning of three months having been given previously.

2566. Those were the terms of the contract, that three months' notice was to put a termination to it?—Yes. It was to be for 12 months certain, and after the expiration of 12 months till the expiration of three months' warning, which might be given by either party to discontinue it. Both parties consenting to carry it on, no notice was given till that which expired in April 1850.

2567. Till three months previously to April 1850?—Exactly.

2568. You say that you suggested some alterations in the terms of the contract; will you state what those alterations were

were which you yourself suggested?—I raised two or three points: I suggested whether it was thought desirable to make a contract with a man resident and preserving abroad. That was one of the points I raised.

2569. Those are matters which you submitted for the consideration of the Admiralty?—These were only suggestions. Another point which I raised was as to the canisters being perhaps too large; whether it was thought desirable to restrict the sizes, and to make them smaller.

2570. What were the grounds upon which you submitted a diminution of the size of the canisters?—The manufacturers had been called upon to give suggestions with the view of assisting in making more stringent terms for the future, and we found that they complained that the process could not be with the same certainty and exactness carried on when the canisters were increased beyond a certain size.

2571. Was that the opinion of Mr. Goldner, or was it the opinion of other contractors?—I think they were unanimous on the point, that the difficulty increases with the size of the canisters.

2572. Did you consult three or four or five of those persons?—Yes; I should say three or four. The correspondence did not emanate from me, though I had an opportunity of seeing it. The Comptroller of Victualling conducted the correspondence.

2573. But you saw that it was the opinion of those persons, that the meat could be more certainly preserved in smaller canisters than in the larger ones?—Yes, I did.

2574. With regard to the suggestion you offered with respect to the contractor living so far from England, what was your inducement to make that suggestion?—At that time Mr. Goldner had been manufacturing at Galatz, and several condemnations were known to have taken place.

2575. That was previously to the contract of 1850?—Previously to the contract of 1850. The form in which I suggested it was this: "Query, whether it was desirable to have the article preserved in the United Kingdom only. The present contractor preserves and resides abroad." The decision on that is: "To be left open."

2576. That was a suggestion which you thought it your duty to make in consequence of some condemnations which had taken place?—Yes; and also the inconvenience that would result from inspecting a factory abroad. There is a clause in the contract that the Board can at any time send a person

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to inspect the process going on, to satisfy them that the terms of the contract have been strictly complied with.

2577. That was an additional reason why you suggested that it might be desirable that those meats should be preserved in the United Kingdom?—Precisely.

2578. You think that the terms of the contract of 1851 were, as nearly as possible, if not precisely, the same as those of the contract of 1850?—They were precisely. I think there was no difference, except as to the quantities; the terms themselves are precisely the same.

2579. Have you ever had any cause to apply for indemnification from the securities of any person contracting for these meats previously to 1850?—Not to my knowledge.

2580. Has it come to your knowledge why the contract of 1851 was not submitted to public competition?—No, I do not know; I am not aware of the reasons.

2581. You are aware of the fact that it was a contract privately entered into?—Yes.

2582. That was the last contract with Mr. Goldner?—It was.

2583. What steps have you, in your office, taken with respect to the sureties, in order to obtain the due performance of the contract?—I have nothing to do with any of those steps, but I do not believe that the sureties themselves have been applied to; I believe there has been an abatement of the value of the condemnations from the bills in office for further supplies, to the amount, or nearly the amount, of the condemnations.

2584. Then is it your belief that the sureties will not have to be called upon by the Government to make good any part of the loss which the Government have sustained?—I imagine that the sureties cannot be called upon to indemnify, until the time arrives when it has been proved that the goods which have been supplied, and for which payment has been withheld, have turned out bad; then, and not before, I think we shall have sustained a loss.

2585. Do you think that the very large condemnations which have already occurred do not constitute a loss to the Government?—My belief is, that having taken other canisters of equal weight, and those, at present, not having been condemned, there may be some of them in the stores in this country, and others on board ships in other parts of the world, which may turn out good, and should all turn out good, then it is supposed that no loss will have been sustained.

2586. But the Committee have before them evidence of condemnations

condemnations to such a vast extent of supplies, which were derived under Mr. Goldner's contract, that it cannot be possible that all those deficiencies have been supplied by the additional meats furnished?—My impression was, that such was the case; I know nothing of the condemnations; they do not pass under my review at all; they are received from various ships, and they are lodged in the department of the Comptroller of Victualling; in point of fact, I do not know the extent of the rejections.

2587. But it was your duty to inquire, and that you have done, into the validity of those sureties?—Certainly.

2588. Was that before or since the contract was entered into?—Before the contract was entered into.

2589. Have you, since Mr. Goldner's defalcation in this matter, made any inquiries with respect to those sureties?—No, that is no part of my duty; before you accept them as sureties, you satisfy yourself of their responsibility, but afterwards you make no inquiry; one of the sureties of Mr. Goldner, I understand, is undoubtedly responsible at the present time.

2590. That is, one of the sureties for the contract of 1850?—Exactly.

2591. Is it your impression that the surety has not been as yet called on to make good any loss that has accrued to the Government?—I am not aware that he has been.

2592. May he have been without your knowledge?—He may.

2593. That would not come through your department?—Not necessarily.

2594. Sir *F. Baring.*] Who were the sureties in the contract of 1844?—In the contract of 1844 there was only one surety; the penalty was fixed at 100*l.*; unless the penalty amounts to 500*l.*, it is not the practice to require more than one surety.

2595. Lord *C. Hamilton.*] It is in your department to satisfy yourself that the securities offered are valid?—Yes.

2596. You did that in this instance?—Yes.

2597. Has anything occurred since to alter the opinion which you formed then with respect to either of the securities?—I have heard rumours that one of the sureties may be, perhaps, not so solvent or so responsible as he was at the time he was taken. But I do not know it of my own knowledge.

2598. If another Government officer came now to the conclusion that he was not trustworthy, would he not ascertain

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from you the grounds upon which you passed him as valid and trustworthy?—At the time when he was proposed as surety I made the necessary inquiries, and I hold in my hands the answers to those inquiries (*producing the same*); but having once accepted him the matter rests there. You cannot obtain new security.

2599. Would not Mr. Grant, when he found his suspicions aroused with respect to the validity of the security, as a matter of course, come to you to ascertain how the matter stood?—No, I do not think he would. If he was about to recover the penalty of the bond, by directing the solicitor to put it in force, he would send to me for the names of the sureties.

2600. You are not a solicitor?—No.

2601. You made use of the expression that you prepare the terms of the contract?—Previously to publicly advertising for tenders for particular services.

2602. When you say that you prepare the terms, do you mean that you suggest the terms in respect of which tenders are to be made, and upon which the contracts by the proper solicitor are afterwards founded?—I make the contracts myself.

2603. Do you draw them up?—Yes; I draw up all the contracts.

2604. Are they submitted to the solicitor in draft?—No. If there is anything of difficulty or intricacy, then they are submitted to the solicitor in draft.

2605. In what way would any difficulty arise until the contracts themselves were tested?—After the tenders had been submitted, and one had been accepted, then, in drawing up the contract itself, some little point might arise upon which it might be necessary to refer to the solicitor for his opinion; but in ordinary cases there is a great sameness in public contracts; they are in much the same words for supplies, whether of teas, oats, or fresh or salt meat.

2606. The contracts are made by you?—Yes.

2607. They are not drawn by a regular solicitor?—They are not drawn by a regular solicitor; but they are always referred to him in cases where it is necessary on account of any legal difficulty.

2608. How would any legal difficulty arise till the contract was tested, by either of the contracting parties declining to accede to the terms of the contract?—There may be some point, as to some condition that is accepted, which requires to be put into technical language not open to any ambiguity.

2609. Your

2609. Your contracts contain terms of mutual obligation? —Yes.

2610. Are you of opinion that those terms which bind those who supply, are calculated to save from harm the parties who demand the supply?—Yes; I think the contracts for preserved meats are as stringent as it is possible for words to make them.

2611. Those terms are substitution where the supplies are rejected upon delivery to the department, and abatement from the payment to the contractor in case of condemnation; coupled with sureties of sufficiently solvent reputation to bear the loss where the principal shall fail?—Yes, and the power of purchasing at the charge of the contractor.

2612. Can you suggest anything, in the case of future contracts going on, that will be more stringent, or do you think the present contracts sufficiently fulfil all those intentions?—I think they sufficiently fulfil all the intentions. I do not think it is possible to gain any additional security by further alterations; you may multiply words, but I do not think any additional advantage would be gained by doing so.

2613. I presume that those contracts, of which you now speak, have had the benefit of legal sanction at some time or other?—I am not sure that the contracts for preserved meat have; but the clauses therein applying to many other contracts have perhaps, at one time or other, all received the sanction of the solicitor, and have consequently been introduced into the contracts for preserved meats.

2614. By the mere substitution of certain words for others? —Precisely so.

2615. Lord *C. Hamilton.*] In reply to a question of the Chairman, you stated that you considered the amount which was stopped in Goldner's contract will cover the losses and condemnations?—I do not know this of my own knowledge; it is only what I have heard. I think an abatement has been made to the amount of 4,000 *l.*, which is said to be the full loss to which the Crown is liable.

2616. Sir *F. Baring.*] Do you know anything as to how the account stands between the contractor and the public?— I do not, nor is it any part of my business to know; but of course, as this is a question which has been under discussion a long time, papers have passed accidentally through my hands, or I have heard facts stated in relation to the subject, but I cannot depose of my own knowledge as to how the account stands.

2617. Mr. *Yorke.*] Have you the control of the selection of

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of the sureties in your department?—I can object to them if I have any reason to doubt their solvency. A case occurred only last week where I had rather a suspicion that the person was not solvent; I wrote a private note to the individual, and he came and quietly proposed another surety.

2618. Do you give notice to the sureties to prove their sufficiency?—No; I will state what is done: our plan is this, to require every tender to be accompanied by a letter signed by one or two sureties, as the case may be, offering to become bound with the person tendering in the sum fixed for the fulfilment of the engagement, and giving a reference to some person well acquainted with their sufficiency, of whom inquiry on that point could be made; inquiry is then made of the referees in writing, and if the answer received proves satisfactory, the sureties are accepted as a matter of course.

2619. Referring more particularly to the contract entered into with Goldner before 1850, was the same mode of obtaining the necessary information applied in that case?—In the contract of 1840, with Goldner, it was only a 60 *l.* penalty; in the contract of 1844 it was only fixed at 100 *l.* In that case I had suggested a larger penalty, but it was decided that the penalty was to be 100 *l.*

2620. Was it understood that the reason for the smallness of the penalty was the provision in the contracts for supplying meats for substituting fresh meat when the supplies were rejected, and for abatements from the payment in the case where they were condemned?—No; it was the smallness of the supply that regulated the smallness of the penalty. The contract of 1840 was for an amount of provisions under 250 *l.*, and then 60 *l.* was quite a sufficient penalty for the performance of it.

2621. That is assuming that there would be only so much lost upon so small a quantity?—Yes.

2622. When a contract became very much larger, was there an alteration in those terms?—No; I suggested that there should be, but the suggestion was not adopted; 100 *l.* was fixed for the penalty in the contract of 1844, the running contract.

2623. Then, under the contract in 1850, that was a very large quantity; what was the penalty there?—There the penalty was 3000 *l.*; then a written inquiry was made respecting the sureties, and I had answers made to that inquiry.

2624. You were a party to the contract of 1850?—Yes.

2625. And the sureties were put before you in the same way as in the former instances?—Just the same; and I have here

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here the written answers in 1850, as to the sureties; one is "London Joint Stock Bank, Princes-street," signed "G. Pollard, manager." In reply to your letter of the 23d instant" (this is addressed to William Leyburn, Esq., Department of the Comptroller of Victualling), "I beg to state, for the information of the Lords Commissioners of the Admiralty, that in my opinion, Mr. William Quilter, of No. 57, Coleman-street, is sufficiently responsible to become bound to Her Majesty in the sum of 3,000*l.*; but I, of course, offer such opinion without prejudice to myself individually, or to the bank." That is a very common precaution on the part of a banker in answering similar questions.

2626. Of course they only speak with reference to the deposits in their own hands?—Precisely.

2627. The other is "Long & Hewlitt, Chancery-lane, wine merchants;" their note is, "I am of opinion," (Mr. Long writes for the firm), "that Mr. W. H. Ritchie is a person fully qualified to become surety for the due fulfilment of Mr. Goldner's contract." The bond was for 3,000*l.*

2628. With reference to Mr. Ritchie being taken as one of the sureties, did it ever strike you as questionable whether it was advisable to take as surety a person who had been a partner with Goldner, or his agent?—I had understood that he was no partner of his; and I have a distinct recollection of making the inquiry, and of being told that he was in no way connected with the business; because it is a rule not to take two persons in partnership, otherwise it would be equivalent to only having one surety.

2629. You believed him at the time to be perfectly independent?—Perfectly independent. There was a man of the name of Ritchie who was connected with Goldner, but not the one who was surety.

2630. Have you reason to believe that those two parties were not the same?—Their Christian names are different. For the contract of 1851, Mr. Pollard also states his belief that Mr. Quilter is sufficiently responsible for 4,000*l.*; and Long and Hewitt state that William Henry Ritchie is a sufficiently responsible person to enter into a bond for the amount named, 4,000*l.*

2631. Lord *C. Hamilton.*] You inquired into the nature of the securities on each occasion of a new contract being formed?—Yes.

2632. Had you not heard that there had been considerable condemnations of Goldner's provisions in 1849?—I had heard of it.

2633. Did

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2633. Did not that induce you to be still more vigilant in examining into the securities offered?—I had no other means than making inquiries as to the respectability of the parties, nor was I aware of the extent of the condemnations; and even at this moment I do not know their extent.

2634. If you had heard that they were very considerable, that would probably have made you more strict in drawing out the contract of 1850. Having heard of those complaints, did not those complaints lead to any more stringent terms being included in the contract?—Yes; the terms were modified with the view of making them more stringent, though I do not know that the contract was materially altered in its conditions.

2635. Supposing you had heard that Mr. Goldner's supplies had been rejected from a great mercantile house on account of the numerous complaints, would not that have made you still more cautious in the terms of the contract?—Certainly.

2636. You had not heard of any such fact?—Not at all.

2637. There is a letter of Mr. Goldner's before the Committee, in which, after remonstrating against the decisions which have condemned his meat, he goes on to to state that the Lords of the Admiralty must have been convinced that his process was the only practical one for preserving meat, "otherwise they would not have honoured me with the new contract for 1851 for 800,000 lbs., to the exclusion of public competition." Now, I wish to ask you whether Mr. Goldner is justified in saying that you formed this contract with him, excluding public competition, in 1851?—I believe he was written to by the Comptroller of Victualling to ask whether he would supply; but of the reasons for not putting it up again to public competition I am not informed.

2638. This was in 1851, two years after great condemnations had become more or less notorious. Have you any document to refer to which will show whether that contract was to the exclusion of public competition?—It was unquestionably to the exclusion of public competition; because the party was written to for his terms, and asked whether he would agree to supply, and on his agreeing to do so the necessary contract was drawn; but that negociation was carried on quite independently of me; I had no part in the transaction till the terms were approved; then the papers came to me to make the formal contract binding upon the party.

2639. But inasmuch as you knew at the time that very extensive condemnations had taken place, I presume you would be more careful, in entering into a private contract, in preparing the

the terms of the contract?—No question about it; and from time to time alterations have been made in the terms of the contracts, with a view to obtaining additional security.

2640. And to avoid the losses which have accrued?—Yes.

2641. And I presume, under these circumstances, you will be still more careful with respect to the validity of the security?—I do not know that you can get a better opinion of the sufficiency of a man to be security than his bankers; if they declare that they believe him to be good security for the money, I do not see that, through any other channel, you could derive better information.

2642. You are in no way made acquainted with the fact of the terms of the contract not being conformed to; that is, out of your department?—That is out of my department, unless the question is asked about a breach of the contract, or any point arises that requires a report from me upon it; then I become acquainted with it.

2643. One of the terms of the contract is, that the contractor shall send in writing a statement of the time when, and the places where, he intends to preserve meat; would that come under your notice?—It would not.

2644. Can you state in whose department it would be to take notice of that?—In the department of the Comptroller of Victualling. But the person who, I think, could give the best information upon that point to the Committee, is Mr. William Leyburn, who is chief clerk to the Comptroller of Victualling, both to the past and to the present; he knows the whole affair from beginning to end.

2645. Sir *F. Baring*.] When was the contract of 1850 made?—It is dated the 2d of May 1850.

2646. When was a further contract made?—On the 29th of January 1851.

2647. Therefore there were not two years existing between the first and second contract, were there?—Certainly not.

2648. Do you know whether there had been any considerable difference in the price of meat during that interval?—I do not.

2649. From your experience, is not it a very common case, where a contractor is under a contract, if any further supply is required, to go to him and ask him whether he is content to supply it on the same terms?—If he has fairly executed his previous engagement, it is.

2650. You have been superintending the contract service for some time, have not you?—For 28 years.

2651. Had Mr. Goldner any particular favour shown to him,

or

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and therefore the Board have limited salt meat contracts to that number of tierces, and they reject any tender for a less quantity than 300 tierces. They are not guided by the lowest tender in that and some other cases, because we have found by experience that parties that we knew were incompetent to execute the contract would take it, and afterwards endeavour to dispose of it, and therefore we thought it right to stop that practice.

2735. In the case of preserved meats, when they were submitted to public contract, was it inserted in the conditions of the contract that the Board were not bound to take the lowest tender?—There was no such exception inserted in the conditions of the contract.

2736. And therefore the rule which you have laid down as the rule generally adhered to, must be considered to be in effect in that case?—It was considered latterly to be in effect; when I say latterly, I mean in the last contract or two; previously to that there were only three samples of preserved meat; one in 1835; at that time the contracts for preserved meats were taken by samples. In taking small quantities of preserved meats, it was decided that a sample should be exhibited before the contract was made, and that was done also in 1842 and 1843, when contracts were made, but since that, till the last three contracts, they were not by samples; the last three contracts were by samples.

2737. Those were the contracts of this year?—Those were the contracts of last year; we have made none of this year; I refer to the contracts that were taken in May of last year, and subsequently in October, and there was a contract in December; I do not recollect the exact dates.

2738. Do you recollect the names of the contractors who took the contract?—The contractors upon those occasions were Hogarth & Company and Moir & Company.

2739. The tenders for those contracts were submitted with samples of the article to be supplied, but with regard to former contracts since 1835, that had not been the custom?—It had not; I remember that the one in 1843 was taken by sample; that was taken by Messrs. Gillon & Company; that was in consequence of Mr. Goldner submitting to the Board that samples should be taken; in fact, he submitted a new means by which preserved meats could be supplied to the navy; and he submitted samples, and they were exhibited on that occasion; that was the proposition of Mr. Goldner.

2740. Though that was his proposition, yet with several of the contracts which he had supplied, particularly that of

1850,

1850, that form of tender was not used?—I do not recollect whether that was so or not; I happened to be ill at the time, and I was not present, but I can ascertain how that was.

2741. Your impression is, that since 1835, except upon that one occasion you have mentioned, up to last year, the mode of submitting samples to prove the quality of the meat was not thought necessary or advisable?—It was not thought necessary, because all the meats we had had, had been very good at that time.

2742. Was that not thought necessary because the samples would not be a sufficient guide of the quality of the meat, or was it not thought necessary because you were so perfectly satisfied with the quality of the meat that had been supplied?—I should say, that it was because we were perfectly satisfied with the quality of the meat that had been supplied. Mr. Goldner proposed on that occasion, that the meat should be put in the canisters raw, and after it was cooked it would contain about 12 ounces of meat, the remainder being gravy. That was not the case formerly, because the meat was put in indiscriminately in small pieces; it was not considered that that was the proper way of preserving meat, because there was a great deal of gravy and a great quantity of vegetables mixed with it; and on his sending his sample for exhibition the contract in January 1843 was taken by sample.

2743. That which was inserted in large pieces with gelatine in it, was the sort of meat that was selected?—Yes; Messrs. Gillon & Company, who took the contract, were bound to make deliveries according to that sample, because the samples were sent to Deptford, where the articles were received, as the guide for the officers there for the deliveries under the contract.

2744. Do you recollect the extent of the contract taken by by Mr. Gillon?—It was a running contract for such meat as might from time to time be wanted.

2745. Were large quantities supplied by him under that contract?—Not very large, not more than 14,000 lbs. or 15,000 lbs.

2746. Do you consider Mr. Gillon to have been a very successful contractor for those meats?—No, I do not think he was; we were obliged to put an end to that contract in consequence of heavy demands coming upon us for an expeditious supply; we applied to Messrs. Gillon under that contract to know whether they could supply within a short time, within ten days, large quantities of meat; they could not supply those large quantities in proper time, and therefore, with the sanction

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sanction of the Board, Mr. Goldner was applied to, and he supplied the meat that we required within 10 days.

2747. The failure of Mr. Gillon was not from the quality of the meat that he supplied?—No, it arose from his not having a sufficient quantity of meat in store, particularly of the large sizes, which were not much in use, and he could not supply it in time, and therefore the Board were driven to the necessity of getting it from Mr. Goldner.

2748. Mr. Gillon could not supply the quantity which you required, nor could he supply meat in these large cases?—No, he was not in the habit of making those large cases of 30 lbs., or something of that sort.

2749. Did he say that it would be difficult to preserve meat in those large cases?—He said it would take some time to prepare it; it was considered by the Board desirable that the experiment of issuing preserved meat should be tried on board the convict ships, and as the convict ships were on the point of sailing, it was necessary to have a supply within 10 days, or the vessels would have gone without it; it was a matter of absolute necessity, and as one party could not supply it, we applied to the other party.

2750. For those large messes that the convicts would require, it was supposed that it would be more convenient to have the meat in large canisters?—Yes.

2751. Did Mr. Goldner express any doubt of the practicability of preserving meat in large canisters?—Not the least; he said it could be done, and he preserved meat in large canisters at that time.

2752. Has it since been proved that the meat in large canisters has kept as well as that in small canisters?—It seems very doubtful whether the meat will keep so well in large canisters, say of 12 lbs., as it does in canisters containing a less quantity.

2753. In the evidence we have taken there appears to be no doubt in the mind of most of the witnesses that large canisters are more subject to injury than small ones, from their increased weight and bulk, and any injury that happens to them occasions more damage than to small canisters?—That may be; as far as my information from inquiries goes, I have understood that it was the feeling of the manufacturers, that large canisters, say of 12 lbs., could be manufactured without difficulty. Mr. Hogarth was of that opinion, and one or two others, but they have since been induced to alter that opinion, and to consider that meat cured in canisters of a less size would be more desirable; and in fact the Board having

having been satisfied of that, have recently given an order to Mr. Hogarth and Messrs. Moir, who were under engagements with the department, to put the meat into canisters of 6 lbs. each, instead of 12 lbs.; and I believe the reason they give for it is (I am not a manufacturer myself), that the air in the meat could not be so properly expelled out of large canisters as it could out of canisters of smaller dimensions, that you could depend upon it more with smaller canisters than with larger ones, though at one time they said that there was no difficulty whatever in it; and the only individual who objected to these large canisters was Mr. Gamble; he was very much against the meat being cured in 12 lb. canisters, and he wished to have smaller ones, but the order of the Board was imperative, and we could make no deviation.

2754. Did Mr. Gamble at any time object to tendering for contracts on account of the size of the canisters?—I do not know that he objected to tendering; he verbally expostulated that the meat could not keep so well, though it was known by the evidence of other parties that it could be cured in 12 lbs. canisters, and keep as well; in fact, the thing is proved, for a great many of the canisters of 12 lbs. which have been supplied by Mr. Hogarth have kept good for some time.

2755. Any objection that would apply to 12 lb. canisters as compared with 6 lb. canisters, would of course be increased if the canisters were 30 lbs.?—Yes, it would, though canisters had been supplied as large as 30 lbs. by Mr. Goldner, and the meat in them has been very good.

2756. Were you the person who prepared the contracts, or did the terms of the particular contracts come through your particular department?—Yes they emanated from e Comptroller of Victualling; I suggested to the then Comptroller of Victualling what occurred to me, and the Board sanctioned it, and it went to the Contract Office to be drawn out.

2757. Those suggestions were not all your own; they came from different quarters?—Exactly, and they were submitted to the approval of the Comptroller.

2758. Do you recollect the word "intestines" being added to the description of the parts of the animal that were not to be preserved?—I think that was done in the contract that was taken last May.

2759. It has been stated to us that that addition was made as early as 1850?—I was not aware of that. There was one case of an intestine being found in a canister, and very likely to provide against such an occurrence, that condition may

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have been introduced into the contract; but I believe the conditions of the contracts are before the Committee.

2760. You do not recollect the particular circumstance which led to that?—The only particular circumstance, I should imagine, was it having come to the knowledge of the Board that in one canister some intestine had been found.

2761. It is not in your department, but it is in what you call the contract department, to ascertain the validity of the security which is offered on the part of the contractors?—It is so; the conditions of the contract specify that the parties are to propose their sureties when the contract is taken, and we generally take care to see that the tender is accompanied by a letter proposing sureties for the execution of the contract, and that letter goes up with the accepted tender to the Contract Office, for the contract clerk to make the proper inquiries.

2762. Lord *Claud Hamilton.*] Is it your department to see to the validity of the securities that are offered for the contracts?—It is so far as this; the contract department is equally under the control of the Comptroller of Victualling, as well as the other departments of the Admiralty; and if there is any doubt as to the proper security offered or the references, the subject is generally brought before the Comptroller of Victualling, and he decides according to what he considers to be the proper security; or, if he is doubtful, he takes the opinion of the superintending Lord upon the matter.

2763. Was that done in each case before the contract was entered into with Mr. Goldner?—Yes, I believe so.

2764. That is not in your particular department?—Yes; it is so far in my particular department that we should not accept a tender unless there was a letter accompanying it, proposing sureties.

2765. Is the solvency of the surety examined into?—It is examined into so far as this: the contractor says that such and such persons are willing to become bound for him; we then require references as to the eligibility of such parties; we write to those references, and if we find that the parties who are proposed are worthy to be taken as sureties, then the contract is accepted; where there is any doubt of the respectability and eligibility of the party, the Contract Office refers the case for the opinion of the Comptroller of Victualling; and if he is not satisfied, he calls upon the party to produce another reference.

2766. Admiral *Bowles.*] When was preserved meat first introduced as an article of general issue for the navy?—In 1847.

2767. Previously

2767. Previously to that, Goldner's contract had been a running contract?—The contract of 1844 was a running contract for small sized canisters, from 1 lb. to 2 lb. canisters, I believe.

2768. What was the whole quantity of the annual supply previously to preserved meat being introduced as an article of general food for the navy?—I am not prepared to say.

2769. Was it a small quantity?—It was a small quantity, about 50,000 lbs., at 6 *d.* a lb.; it is about 1,200 *l.*; it was under 2,000 *l.*

2760. Had the supplies made by Mr. Goldner, generally speaking, been satisfactory from 1844 to 1849?—Yes, very satisfactory.

2771. In May 1850 a new contract was entered into?—Yes.

2772. That was accompanied by much more stringent conditions, and by heavier penalties?—Yes; in the former contract of December 1844 the penalty was only 100 *l.*, and in the contract of May 1850, which was much more stringent than the former contract, the penalty was 3,000 *l.*

2773. The contract in 1850 was advertised for in the usual way?—Yes.

2774. Whose was the lowest offer?—Mr. Goldner's was the lowest offer.

2775. Do you think anything had occurred previously to the acceptance of that offer that would have justified the Admiralty in excluding Mr. Goldner?—I should think not; there was an instance of some objectionable substance being found in one of his canisters, but the Board did not consider that a sufficient reason for rejecting his tender.

2776. They considered that to have been a fraud committed upon Mr. Goldner, and not a fraud committed by him upon the public?—It certainly was not a fraud of Mr. Goldner, because I do not think he would have been so silly as to attempt a fraud of that sort; the advertisements being issued, and there being public competition, the Board in this case, as they had been in the habit of doing before, took the lowest tender, which was Mr. Goldner's.

2777. Was there not one condition in that contract, that the contractor should make good all condemnations under five years?—Yes; that is a repetition of the condition in the contract of 1844.

2778. What other supplies were required in 1851?—In 1851 a contract was made for 800,000 lbs. of meat.

2779. What measures did you take?—On that occasion the Board considered that, as we were under an engagement with

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Mr. Goldner (that is the contract of 1850, and he had not completed the whole of his engagement; in fact there was a great deal of meat to be delivered), it would be inexpedient to go into the market, and publicly to advertise, particularly as he had executed his contract in a very satisfactory manner; he was a manufacturer under a peculiar patent, by which the meat was extremely well cured, and in fact he had a patent process of curing, which no one else could imitate, and the meat was supplied at a very reasonably low rate, as low as 4*d.* and a fraction per lb., and it was considered that it would not be fair to the contractor to go into the public markets to obtain meat from other parties, and therefore he was written to, to know the terms upon which he would supply meat; he stated a price which the Board did not consider themselves justified in giving; he said 5*d.* and 5 ⅜*d.* a lb., and he was told that the Board did not feel disposed to give so high a price, and then he reduced the price to 4 ¾*d.* a lb. for the largest sized canisters, and 5*d.* and 5 ⅛*d.* for the smaller sized canisters, and upon that the Board concluded with him, because we wanted the meat; notwithstanding the contract of 1850 had not been executed completely, the demand for the supply of preserved meat in the navy became so urgent upon us, that we were obliged either to go into the market to obtain more meat, or to make a private arrangement with the contractor, and it was not the practice of the Board to go into the market and publicly advertise for meat when a contract had been entered into so recently for the same description of article.

2780. You considered that it would be unfair to the contractor, and also contrary to the practice of the department, under similar circumstances?—Yes; it would have been contrary to the practice of the department, and it would have been most onerous; the contractor, in fact, had been at a considerable expense in creating an establishment for the benefit of the navy, by which large supplies of meat were provided, and which we could not get on more advantageous terms elsewhere; it was therefore thought very desirable to come to a private agreement with him.

2781. Do you consider that the public have been losers by the large quantity of meat which has been condemned?—Certainly not; on the contrary, the Government have in their possession now a very large sum, which will indemnify them for all the condemnations which have taken place upon all the former contracts; and with regard to the contract of 1851 the Board have sustained no loss at all, for the first delivery that Mr. Goldner

Goldner made was 153,000lbs.; and upon another delivery of about 22,000 lbs. there happened to be a tongue found in one of the canisters that was opened; the subject was brought before the notice of the comptroller, and submitted to the Board, and upon inquiry whether that tongue was considered an objectionable article or not, the butchers in the market stated that it was considered offal, and upon that representation, although the meat was of excellent quality, the whole quantity was rejected by the officers at Deptford.

2782. The whole delivery was rejected?—Yes, 22,000 lbs. were rejected, though there was only one of the canisters which the officers opened, which was found to contain a tongue.

2783. Do not you then consider that the strictness exercised towards Mr. Goldner has been excessive rather than otherwise?—I think it has, because it was admitted that this meat was of an unexceptionable quality, and the Government in that case lost nothing by the engagement of January 1851, inasmuch as we received 153,000 lbs. weight which we have not paid for: we have it in hand, and there were no further deliveries made by Mr. Goldner under that contract, and therefore the Government have not lost anything by it.

2784. Colonel *Chatterton.*] You said that there was part of an intestine found in one of the canisters, which caused that word to be inserted in the contract; whose canister was that?—I think it was one of Mr. Goldner's canisters.

2785. Were the issues of meat which Mr. Goldner made from 1844 to 1849 ever examined?—Yes, they were.

2786. But no complaint was made of his meat?—No, and none was rejected.

2787. No bad meat was found among his supplies?—No, none was rejected by the officers.

2788. This preserved meat which turned out bad was in 1849?—Some of the meats of 1849 and 1850 turned out bad; the accounts did not come into the office of rejections till about the time of the contract of January 1851 being taken; several condemnations came in then, but that must have been meat delivered, not under the contract of 1850, but under previous engagements.

2789. Under the contract of 1849?—There was no contract in 1849; the contract was made in December 1844; and in June 1846, when the Board of Admiralty determined to issue preserved meat as a general article of food for the navy, the contractor was applied to to know how far he was prepared to make large supplies, and not only large supplies, but in a large description of canisters, for the service of the

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navy; and he then stated, that on condition of the Board giving him large orders, he would reduce his contract from 6 *d.* to 5 *d.* a lb. That was in June, and on that occasion we ordered 250,000 lbs., which was an unprecedented quantity, which he was to deliver by the month of October, and the remaining 250,000 lbs. by the following March; and after that, as we required large supplies under the contract of 1844, demands were made of the contractor at that rate, therefore the contract may be said to have continued from 1844 to 1849, till notice was given of its termination; it was one contract, but certain arrangements were made in regard to the reduction of the price of the meat supplied.

2790. You say that the sureties of Goldner were examined into with great care?—They were examined into with the same care and attention as the sureties of all the other contracts.

2791. Is it the case or not, that one of the sureties was a clerk of his own, or an agent in his employ?—I am not aware of that; I know that one surety is a very respectable man, a Mr. Quilter, an accountant in the City; he is a very wealthy man. Mr. Ritchie is one of the sureties; I do not know whether it is the same Ritchie that is now in his establishment.

2792. Has Ritchie been in Goldner's employment?— I believe he was his agent.

2793. Sir *F. Baring.*] Do you know, or do you believe, that Mr. Goldner had any political or private interest at the Admiralty?—I am not aware of anything of the sort.

2794. Do you believe that there was anything of the kind?—I do not think he had any political influence; all the influence he had was from having supplied excellent meat, and it was found to be a great boon to the navy to have such meat, and it was highly relished; that was all that was known by the Admiralty of Mr. Goldner.

2795. Colonel *Chatterton.*] You cannot call it excellent meat, if it became so bad?—That was after the lapse of a considerable time; if the Board had been aware that it would turn out so bad, they would not have dealt with him.

2796. Admiral *Stewart.*] For five years you say the meat supplied by Mr. Goldner was unexceptionable?—Yes.

2797. Lord *C. Hamilton.*] Were you aware when the contract of 1850 was entered into, that it was to be performed abroad at Galatz?—It was not so stated, because it was not required to be stated in the contract where it was to be performed.

2798. Was

2798. Was it not one of the conditions of the contract that the meat was to be manufactured in the United Kingdom?—No.

2799. Was it not a term in the contract that notice was to be given of the places where and the times when the process of preserving the meat was to be gone into?—Yes, that was a condition in all contracts from 1844.

2800. Did Mr. Goldner comply with that condition?—He did not, because the Board of Admiralty did not think it necessary to send an individual to examine his manufactory.

2801. They were aware that it was beyond the reach of their immediate superintendence?—Not exactly that; but it is objectionable in many cases for the Board, when they make a contract with an individual, to appoint an inspector to see how it is executed; for this reason, it would be a plea on the part of the contractor when his article came to be examined in the public stores, "This meat has been cured under your own agent's observation, and therefore you have no business to reject it;" and I believe that was the feeling of the Board, that there should be no intermediate party in the examination of what was tendered for delivery, because the parties were sufficiently cognizant of what should be received, and if it was not according to the conditions of the contract the officers rejected it; but if there was an intermediate party, the contractor would very reasonably say, "This was done under the superintendence of the agent that you appointed, and therefore if there was any fault he should have pointed it out at the time."

2802. But still these terms were included in the contract?—Yes.

2803. But they were not acted upon?—No, there was no necessity for acting upon them at that time.

2804. In 1851, when the contract was privately arranged with Mr. Goldner, had not complaints reached the Admiralty of inferior meats having been supplied?—There had been some complaints and some condemnations, but they were not of such an amount, considering the condemnations that take place of other articles of provision supplied for the public service, as to have induced the Board not to come to an arrangement of that kind with the man with whom they had had dealings.

2805. When was it that the great alarm arose which led to general orders being sent out for the meat to be returned from all the foreign stations?—In September last; it was very shortly after the contract of 1851 was taken that condemnations came into the office very rapidly, and therefore the Board took

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took it into consideration whether with those constant condemnations it was desirable to go on with the contract, and measures were taken almost immediately to put an end to the contract, they having previously, while they were making inquiries, disallowed any supplies being received from Mr. Goldner under the contract of 1851, and it was stopped almost immediately.

2806. From the description you gave of the meats which were condemned in a wholesale way, owing to the officers finding a tongue in one of the canisters, I presume that that condemnation arose more from the numerous complaints which came in than from the presence of the tongue?—No, I think not, because the Deptford officers had a doubt in their mind; they were almost disposed to receive it, but having had some few condemnations of meat where it appeared that a tongue was found occasionally in a canister, the Board considered that it was not in accordance with the conditions of the contract, and that therefore the meat should be rejected.

2807. When you said that the public would not be losers, did you mean to include in that which was to indemnify the public the full amount of the securities?—Yes.

2808. Viscount *Newport.*] Were you the person whose duty it was to see that the securities were valid and good?—No; as I mentioned before, the names of the sureties are given in at the time the contract is made, and the letter giving the names of the sureties is sent up to the Contract Office to make the necessary inquiries, and after those inquiries are made, a letter is written by the Comptroller of Victualling to ascertain whether the party given as a surety is a respectable party.

2809. Are you the person through whom that goes?—Yes, I make a minute upon the subject, and the letter goes from the Department of Victualling to the parties named as referees.

2810. Were you satisfied that Mr. Goldner's securities were as good as the other securities?—Yes; the contract being executed, and no demur having been made at the Contract Office, I considered that the security was a valid and proper security.

Veneris, 30° die Aprilis, 1852.

MEMBERS PRESENT.

Sir William Jolliffe, Bart.	Mr. Fordyce.
Mr. Gwyn.	Admiral Stewart.
Admiral Bowles.	Colonel Chatterton.
Sir Francis Baring.	Mr. Miles.
Lord Claud Hamilton.	

SIR WILLIAM G. H. JOLLIFFE, BART. IN THE CHAIR.

Colonel *Arthur Hill Trevor*, called in; and Examined.

Col. *A. H. Trevor.*

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2811. *Chairman.*] ARE you a Colonel in the Army?—Lieutenant-Colonel.

2812. Of what regiment?—Of the 59th Regiment.

2813. Did you at any time embark with your regiment from England or from Ireland?—Yes, from Cork. We embarked on the 12th June 1849 on board the "Apollo."

2814. What part of your regiment embarked that was under your command?—Under my command six companies were ordered to embark. In the first instance, the whole regiment was ordered, the service companies, but I happened to come to London, so I represented that there was not room on board the "Apollo" for so many, and another vessel took a portion out.

2815. How many men had you embarked on board the "Apollo"?—We had on board the "Apollo" 16 officers; one lady, an officer's wife; 512 of all ranks, non-commissioned officers, rank and file; 32 women and 40 children.

2816. What was the date of the embarkation?—The 12th June 1849.

2817. And when did the ship sail?—The 17th June 1849.

2818. Where was the regiment bound to?—Hong Kong.

2819. Was it the intention that this ship should touch at any ports?—Yes, she had orders to do so. I know she had despatches for Rio Janeiro. We touched at Madeira for water, which they would not give us.

2820. How many days had you been out when you touched at Madeira for water?—About 12 days, I think. We wanted

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wanted to fill up, but they would not give it us; we went to Teneriffe, where we got bad water; it was a muddy sort of water; they floated it off to us; they would not have anything to say to the ship, as we had the cholera, and the yellow flag flying.

2821. Had the cholera broken out before you embarked?—No, we had no cholera before we embarked.

2822. How many days was it before the cholera made its appearance?—To the best of my recollection it broke out on the day after the "Apollo" sailed from Cork, the 18th June.

2823. What was the nature of the provisions which were served out; what was the manner in which the men were victualled?—We had salt beef some days, salt pork, flour, tea, coffee, sugar, rice; they were served out in rations; it is, perhaps, irrelevant now, but I never considered that they had enough of any sort of provisions on board; they do not give the soldiers so much as they do the sailors.

2824. Do you know the difference that is made?—I cannot tell, but there are officers of the ship here who will tell you that.

2825. They are not victualled under the same regulation?—No, the sailors have a portion more, a good deal more.

2826. More meat?—More food altogether, more allowance; I do not know whether it has been altered since.

2827. Admiral *Bowles.*] It is one-third more?—Yes, it is one-third more.

2828. *Chairman.*] Was fresh meat served out?—We took a portion of fresh meat hung up in the rigging; it did not last very long, and we had preserved meat in tins served out afterwards.

2829. How long had you been at sea before you began those tins?—I did not keep a note of that at all, but to the best of my recollection, I think it was decidedly after the cholera broke out; I am not quite sure of that; in fact, that is a question I cannot speak positively upon. The officers of the ship will tell you that.

2830. Was it before you arrived at Madeira?—I think not; I cannot recollect that exactly.

2831. Did you get fresh meat either at Madeira or at Teneriffe?—No, they would not have anything to say to us; they would give us nothing at Madeira, except wine; but we got water, and I think some live bullocks at Teneriffe.

2832. Admiral *Bowles.*] In consequence of their knowing you had the cholera?—Yes, we had the yellow flag flying.

2833. *Chairman.*]

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2833. *Chairman.*] The preserved meat was served out before you got to Rio?—Yes.

2834. Then was it continued for one or two days a week?—Two days a week, I think, it was served out, but we discontinued it; the doctor recommended that the men should have a full ration of salt provisions, which did a great deal of good.

2835. Were they good?—The salt provisions were very good.

2836. Were the preserved meats good?—No; very many were bad and were condemned, and thrown overboard; they were very offensive; when the tins were opened, and the vessel was going through the water, we did not get rid of the stench for some time; it was dreadful.

2837. Was any stench complained of from the stores where the tins were kept?—No, I never heard that; I do not recollect any stench until the tins were opened.

2838. And then it was so offensive that you, yourself, experienced the effects of it?—Not only the ship but the whole atmosphere was tainted with it.

2839. Was it by your order, or do you know from any communication with your medical man, the surgeon of your regiment, that it was discontinued at his suggestion?—No; the preserved meat was not continued with us; it was discontinued.

2840. At the suggestion of the surgeon of the regiment?—He was not the surgeon of the regiment, he was the assistant-surgeon of the 10th Hussars, who was sent out in charge; the surgeon was promoted to staff, and was replaced by assistant-surgeon Fraser, 10th Hussars, who took medical charge of the regiment; the 10th Hussars are now in India, I believe.

2841. Did he communicate to you his opinion with respect to this stench?—Yes; he made a very long report to the Medical Board here, and he showed me a copy of it. I think it never was properly decided what caused the cholera; I think he attributed it to the description of recruits we got together in a hurried manner; the regiment had been reduced and was ordered to be increased, when we got a number of Irish recruits; he attributes it to that; I think, if I may charge my memory, that we had taken the cholera with us, because the cholera was in Cork; we had cholera in the regiment when at Fermoy; whether we had any at Cork in the regiment I do not know; but I know the cholera was at the barracks at Cork; we waited five days and there was no appearance of cholera among the men.

2842. You

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2833. *Chairman.*] The preserved meat was served out before you got to Rio?—Yes.

2834. Then was it continued for one or two days a week?—Two days a week, I think, it was served out, but we discontinued it; the doctor recommended that the men should have a full ration of salt provisions, which did a great deal of good.

2835. Were they good?—The salt provisions were very good.

2836. Were the preserved meats good?—No; very many were bad and were condemned, and thrown overboard; they were very offensive; when the tins were opened, and the vessel was going through the water, we did not get rid of the stench for some time; it was dreadful.

2837. Was any stench complained of from the stores where the tins were kept?—No, I never heard that; I do not recollect any stench until the tins were opened.

2838. And then it was so offensive that you, yourself, experienced the effects of it?—Not only the ship but the whole atmosphere was tainted with it.

2839. Was it by your order, or do you know from any communication with your medical man, the surgeon of your regiment, that it was discontinued at his suggestion?—No; the preserved meat was not continued with us; it was discontinued.

2840. At the suggestion of the surgeon of the regiment?—He was not the surgeon of the regiment, he was the assistant-surgeon of the 10th Hussars, who was sent out in charge; the surgeon was promoted to staff, and was replaced by assistant-surgeon Fraser, 10th Hussars, who took medical charge of the regiment; the 10th Hussars are now in India, I believe.

2841. Did he communicate to you his opinion with respect to this stench?—Yes; he made a very long report to the Medical Board here, and he showed me a copy of it. I think it never was properly decided what caused the cholera; I think he attributed it to the description of recruits we got together in a hurried manner; the regiment had been reduced and was ordered to be increased, when we got a number of Irish recruits; he attributes it to that; I think, if I may charge my memory, that we had taken the cholera with us, because the cholera was in Cork; we had cholera in the regiment when at Fermoy; whether we had any at Cork in the regiment I do not know; but I know the cholera was at the barracks at Cork; we waited five days and there was no appearance of cholera among the men.

2842. You

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2842. You carried out men recently recruited, and this had taken place subsequently to the famine which had prevailed in Ireland?—Yes, and we had several of those Irish recruits enlisted to us.

2843. Consequently they were in a reduced state?—Yes; my own opinion was, and my own opinion is now, that we took the cholera with us from Cork; the merchant ship that took four months to go out while we took eight months, had not a single case of cholera on board or any casualty.

2844. Was there any of your regiment in that ship?—Yes, they embarked five days after we did, and sailed six or seven days after we did, but got there four months before us.

2845. Lord *C. Hamilton.*] What ship was it?—The "Hugh Walker"; they had not a casualty or a case of cholera on board; still I think that we took the cholera with us from Cork.

2846. Mr. *Miles.*] In that detachment was there a proportion of Irish recruits?—Yes, it was done thus: I had got an order to send a major, five officers, and 130 rank and file, with a proportion of women, and I took one company of 100 men, and 30 men from another company indiscriminately, and took them from any company, and sent them on board.

2847. Sir *F. Baring.*] Had you more than one case of cholera in the regiment before you started?—Yes; I recollect particularly two very bad cases.

2848. Before you sailed?—Yes, before we sailed; that was at Fermoy; I remember, the day the regiment was inspected before embarkation, going with the general into the wards where those two men were very ill indeed; in the confusion of the moment when I was departing from Fermoy, I forgot whether those men died or not.

2849. I understand your recruits were obtained at the time of the famine, and were a great many of them in bad condition?—Yes; I think they were in bad condition.

2850. I am not sure whether you stated positively that those cases of meat were opened before the cholera broke out?—I forget just at the moment; I cannot recal that just now; I think we did not begin those until after the cholera began.

2851. You do not recollect any complaint being made of any smell arising from the meat before it was opened?—No, I never heard that; but there was a most awful smell in the ship arising from this circumstance, as you may fancy. In a very small crib under the officers' cabin, a place, I thought, 5 feet 9 inches high, but it is only 5 feet 4 between decks, I have been

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been told since I came here, there were 32 women and 40 children.

2852. Mr. *Miles.*] Where was the meat opened?—The meat was opened usually on the main deck; the moment it was opened some of it emitted the most awful smell; it was insufferable.

2853. You do not know what quantity was actually opened?—No, the ship's book will tell you that.

2854. Was there any official statement made with regard to the cases of the cholera?—Yes, by the doctor, and that I know came to the Medical Board.

2855. Do you recollect whether that stated at all that the preserved meat was one of the causes?—No, I cannot recollect that; but I know that it dwelt upon the necessity of more food for the men, if I can charge my memory correctly. It is three years since I read it.

2856. I believe that the troops on board ship have the same allowance that the passengers or idlers have?—Yes, that is one-third less than the sailors; it is a very small allowance.

2857. Is not that arranged by your own authority?—No, that is under the Admiralty.

2858. Upon the application of the medical officer, the allowance was increased, I take for granted?—It was for a certain time; it was afterwards taken off, for I fancy the provisions were growing short.

2859. Was there any article you thought was the subject of complaint?—No.

2860. Lord *C. Hamilton.*] Were you resident in Ireland any time previous to 1849?—Yes; the regiment arrived in Ireland on the last day of January 1846.

2861-2. You spoke of the famine in 1849?—Not the famine of 1849; those recruits were enlisted, and had not got their strength. Those men had suffered from the famine; we enlisted a great number of men. The regiment had been reduced a very short time before that to 800, and we were ordered to increase it to 1,000, to get ready for China. Then I was obliged to leave my old soldiers, who had seen 17 years' service, at home, and make up the service company with a great many of these recruits.

2863. Were the recruits you took under those circumstances of less robust constitution?—There was no bodily infirmity; they were only poor and thin, and a little out of condition.

2864. You attribute it to that, that they were out of condition?—It might have been so. I think I stated that the doctor

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doctor in his report gave that as his opinion; he wrote a long report on the cause of the disease, and dwelt upon that; he said he attributed it to the state of the recruits.

2865. Yet the cholera did not occur among those who went five days afterwards in another vessel?—No; my own impression is that we took the cholera from Ireland; still the other vessel had not a single case of cholera or one casualty.

2866. The cholera did not break out for some six days after you left?—I think five or six days.

2867. Anterior to the use of the meat by some days, was it not?—Yes; I cannot exactly say when the meat was given out. We took out a large quantity of fresh meat, hanging in the rigging, that lasted us some days; when it had been used up I think the preserved meat came into use. I think it took five or six days to eat the fresh meat.

2868. Admiral *Bowles.*] Was the whole of the preserved meat bad and unfit for use, or only portions?—No, not the whole of it; some were not rejected.

2869. Do you recollect in what proportions?—No, I cannot tell.

2870. Was it discontinued altogether afterwards in consequence of part of it being bad?—Yes, we did not use any of it I think from the time we left Rio; we used some of it some time before we arrived at Rio, and I do not think we used any more of it.

2871. You do not consider the sickness on board arose from the preserved meat, or any other part of the provisions which you used?—No, I should not say it did, because I think the cholera broke out before we used the preserved meat. I am under an impression, but I may be wrong, that we took the cholera with us; still the other ship had no cholera, and had none of those provisions, I believe.

2872. What I meant to ask you was, whether you imputed the sickness that broke out to the preserved meats, or to the provisions generally in any way?—No; as regards my own opinion, I think the disease broke out before the provisions were opened. At the same time I think that some of the provisions that were opened were enough to give anybody the cholera.

2873. Colonel *Chatterton.*] Was the "Apollo" ready for you at Cork when you were ordered to embark?—No.

2874. Where had she been?—She had been to the Mediterranean to bring home a company of artillery with stores.

2875. After that where did she go to?—To Portsmouth.

2876. Do

2876. Do you know for what purpose?—No.

2877. Do you know in fact what preserved meats you had on board, and who was the person to preserve them?—That I do not know.

2878. You did not see any of the cases?—No, I did not know what they were.

2879. Am I right in supposing that you perceived a very bad smell on board the "Apollo," a very short time after you had been on board her?—There was very frequently a very bad smell, from whence proceeding I do not know.

2880. When you opened any of these preserved meats were they not in a state of rottenness and putridity?—Some of them were.

2881. A horrid smell?—Yes.

2882. Quite unfit for human use?—Yes.

2883. Of course you took remedies to cure the evil as much as possible. Do you think the bad smell arose from any of the preserved meats?—Certainly, when they were opened.

2884. Not before?—No, because the preserved meats were kept below, and they were brought up in tins; when the tins were opened we had the smell, they were hermetically sealed.

2885. Did you ascertain afterwards the bad smell did not proceed from the bad cases?—No, when the preserved meats were opened, very often they had a most awful stench; there were smells proceeding from other causes, namely, the children and the women below.

2886. I want to ascertain whether any of the smells you perceived proceeded from the preserved meats or not?—I could not undertake to say that; they were kept forward, I think in the hold, and they were brought up as wanted.

2887. The men were very sick and emaciated?—Very sick and emaciated.

2888. Where they ordered fresh meat by the surgeon?—Do you mean preserved meats?

2889. Yes?—No, those preserved meats were served out as part of the ration; they were laid down as part of the scheme for victualling the troops.

2890. It was not on account of the surgeon's representation of the sickness of the men that the preserved meats were used?—No, rather the other way, after using the preserved meats, if I recollect right; it is three years ago; it was at his suggestion the preserved meats were discontinued.

2891. Were they so bad?—Yes, I know of my own knowledge that the men had a dislike to them, bad or good. I know

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know a great many that were served out which were not used, the men had a prejudice against them.

2892. I need scarcely ask you whether you partook of any of those preserved meats?—I partook of preserved meats, but not of any of the ship's.

2893. Did any come under your observation; did you see any of the tins opened?—Yes.

2894. Pray describe what sort of thing it was?—I could hardly describe what it was.

2895. Was it offensive impure meat, putrid and high?—I have seen pieces of tongue and those sort of things; in short, I do not know what it was; if I said what I saw, I should be borrowing my idea from the Portsmouth paper; some of it was very beastly; it was dreadful.

2896. Quite unfit for anything?—Quite.

2897. Can you at all make any calculation how much of that preserved meat that was brought up for use was bad, and thrown overboard?—I cannot tell you. I am afraid there has not been any account kept of it; you will get it of the officers of the ship, and the purser, who are here.

2898. You lost a good many by cholera, did not you?—Yes; I lost an officer and 10 men, I think.

2899. Altogether about 25 souls on board?—No; we lost an officer, 10 men, a woman, two of the ship's company, and two marines, I think, by cholera.

2900. Do you know whether any of the ship's company partook of any of the meat?—I fancy they did; I am sure they did; but that is a matter the naval people will tell you about better than me. I am sure they did, though.

2901. *Chairman.*] Was it served out in the same way* to the ship's company as it was to your men?—I rather think not.

* (I understood the Question to be "on the same day.")

2902. Mr. *Miles.*] When did your fatal case of cholera take place?—The first fatal case was the single man; that was, of course, previous to our reaching Madeira.

2903. And did they go on dying day by day, or was there an interval between the deaths?—Sometimes there was an interval; at one time we were in great hopes that it had finished, but it returned again.

2904. Previously to the time you hoped it had finished, do you recollect how many you had lost?—No, I do not recollect that.

2905. Had you lost the majority before you arrived at Madeira or subsequently?—Subsequently.

2906. When

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2906. When was your greatest loss?—I think our greatest loss was after we left Teneriffe.

2907. Then it was after the meats had been opened and served?—Yes, it was. It was the most sudden thing in the world.

2908. I understood you to state in your previous examination that there was no smell from the canister until the opening of the canister?—Not that I am aware of.

2909. Were you in such a position when these preserved meats were served on board, that if there had been a smell previously to the opening you would have ascertained it?—I do not think I was; they were forward, and I was in the stern cabin.

2910. Had you any officer inspecting the deliveries to the men?—Yes, regularly, the officer of the day.

2911. Was there any report made by the officer to you as to the state of the meats before it was opened?—No, they could not tell it.

2912. Would there have been, if before it had been opened it had been noisome and fœtid?—Decidedly.

2913. Then from the absence of that report, you do not believe that these canisters could have stunk previously to their being opened?—They never were condemned until they were opened.

2914. I want to ascertain whether there were smells previously to the cases being opened?—Not that I am aware of.

2915. If there had been, that would without doubt have been reported to you by the officer?—Yes, but the officer who is here would be there when the canisters were taken out, and will speak more plainly to that. I should not hear of it until after they were opened.

2916. It would come in the report to you as the commanding officer?—Yes; he would find it his duty to report it to me directly.

2917. I understand, from what you have stated, you attributed the smell that existed in the ship not to the preserved meats, but to other causes?—Yes; the reason I do that is, that these people, with their children and offensiveness, were immediately below my own cabin; if the meats had been offensive, I should have complained of it.

2918. Do you recollect whether the surgeon attributed the death of any of your men from cholera to the use of that preserved meat?—I do not recollect it.

2919. Was there any other mortality except that of cholera aboard the "Apollo" previous to your reaching Rio?—Yes; I

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lost a colour-sergeant at Teneriffe from a cask falling on him while it was being swung.

2920. The great casualty was, no doubt, previous to arriving at Rio; except from the cholera, was there any other?—Yes, as above stated.

2921. Sir *F. Baring.*] Two children, I think, died, but not of cholera?—I think there were some children died.

2922. Admiral *Stewart.*] When the meat in the tin cases was found to be bad and unfit for use, what was done with it?—It was thrown overboard immediately.

2923. Can you give us any idea of the proportion of condemnation?—No, I cannot do that.

2924. Colonel *Chatterton.*] I think you sailed from Cork on the 17th of July?—No, the 17th of June 1849.

2925. And up to the 28th June you lost some men by cholera, did you not?—Yes, I think so; it was five or six days after we left Cork.

2926. Because on the 29th July, I see, you reported, "Three men died of cholera;" so that you must have been considerably out at sea when those cases of cholera broke out; you had been out from the 17th June to the 29th of July?—Yes; but then those men did not die together; they died on different days.

2927. But on the 29th July you reported three dead with the cholera?—Yes, but then we sailed on the 17th June.

2928. I believe it was July?—No, June.

2929. Mr. *Gwyn.*] How many days after you left were those meats first of all used?—As I stated, we sailed with a certain portion of fresh meat, and when that was expended, to the best of my recollection, I think the preserved meats came in the regular turn of fresh meat; they took the place of the fresh meat we took with us.

2930. Colonel *Chatterton.*] There were some of your men went on board another ship?—Yes.

2931. Had they preserved meats on board, do you know?—I do not know; the ship had not arrived in Cork; she did not arrive until five or six days after I sailed, and she arrived in China four months before me; I never saw her.

2932. She had no casualties and no death on board?—No.

2933. Admiral *Stewart.*] We distinctly understand that no meat out of the tin cases which was pronounced to be defective or bad, was given to the men?—No.

2934. Lord *C. Hamilton.*] What was given to the men was pronounced good?—If there was the least objection it was surveyed immediately and thrown overboard; I know very well

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well that what was served out a great number of the men would not eat at all.

2935. Sir *F. Baring.*] They did not like it?—They would not eat it; the consequence was it was stopped and they got a full allowance of salt meat.

2936. Lord *C. Hamilton.*] The smell you described created a prejudice against it?—Yes, the men were very much prejudiced; in the best of the preserved meat there is a sort of smell.

2937. Colonel *Chatterton.*] Had you any preserved meats for the officers?—Yes.

2938. Taken in at Cork?—Yes, we had preserved soups.

2939. Was it Goldner's that you had?—I do not know, I never looked at the names.

2940. It was marked on the canisters?—Yes; but it never struck me to look whose it was; I did not know one preserved meat from another. I know this much, that the bad preserved meat tins were all thrown overboard. I do not know what became of the tins of preserved meat which the men had. I know that the tins of the preserved meats in the officers' cabin were made into vessels to hold water.

2941. In fact, what you laid in at Cork for the officers was good?—Yes.

2942. And the greater part of what came from Portsmouth and Plymouth was bad?—A man found us our stock. I know that the man filled our ship with provisions, and he put a quantity of those preserved things on board. I know more, that I took two tons or three tons weight of potatoes that I got at Cork; they were all very good.

2943. Were they preserved or in their natural state?—No; preserved in tins, and they were very good.

James Leyne, Esq. called in; and Examined.

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2944. *Chairman.*] WHAT rank do you hold?—Lieutenant in the 59th.

2945. Did you embark in the "Apollo" troop ship at Cork, in 1849?—Yes, on the 12th of June, and sailed on the 17th.

2946. Were there any cases of cholera in the regiment before you embarked?—Yes; there were cases at Fermoy, and, as well as I recollect, at Cork.

2947. When did you march from Fermoy?—The service companies left in detachments some time towards the latter end of May. I think I got to Cork myself about the latter end of May.

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2948. You think some cases occurred in Cork after you arrived in Cork, and before the embarkation?—Yes; the disease was in the garrison, and cases occurred amongst the men of the 26th regiment, who were in the same barracks.

2949. How long after your embarkation was it before any of the cholera on board occurred?—The day after; the first case was on the 18th of June.

2950. Was that a fatal case?—It was.

2951. A man?—Yes, one of the men.

2952. What was the nature of the provisions which were served out immediately after your embarkation: did you take a certain supply of fresh meat?—After the embarkation it was all fresh meat until we sailed; that is, preserved meats were not issued.

2953. How long was it before the preserved meats were issued?—I cannot say.

2954. Not for some days after you sailed on the 17th?—Not for some days after we sailed.

2955. Then the case of cholera occurred previous to the use of the preserved meats?—Yes, I should say so.

2956. Sir *F. Baring*.] Was it before you sailed that the case occurred?—No, the day after sailing.

2957. *Chairman*.] Were those meats served out previous to your arrival at Madeira?—Yes, I think they were.

2958. Then they were served as regular rations in turns?—Yes, regular rations every third day.

2959. Were they served to the ship's company and to your men at the same time, do you recollect?—I suppose they were. The scale was the same as to the days, but not as to the quantity.

2960. The quantity was less?—The quantity was much less with the soldier.

2961. One-third less?—Two-thirds of a pound of preserved meats, and half a pound of pork, and half a pound of beef, were the daily rations. I believe the sailor gets a pound of preserved meat, if not more, and three quarters of a pound of the others.

2962. Was it your duty when you were officer of the day to inspect the messes as they were issued?—Yes, always.

2963. And you then frequently had opportunities of seeing these preserved meats served out?—Yes, particularly after the 20th of July, when, on the death of the quarter-master, I was appointed acting quarter-master; it was my business not only to receive the meat, salt and preserved, from the purser, but also to see the latter issued out to the men from the coppers.

2964. Then

2964. Then you were every day employed in the issuing of the meats?—Yes, every day on which preserved meats were the ration.

2965. Every day the meats were issued after you were appointed to act as quarter-master?—Yes, I saw them every day.

2966. What state were those meats in?—There were several cases declared to be bad on the survey.

2967. You mean several cases from time to time?—Yes, from time to time. I allude principally to the period subsequent to our leaving South America, when the issue of preserved meats was resumed, for previous to the 20th July I had but few opportunities of observing them, and their issue was suspended about that date as well as I remember.

2968. Not every day?—Not every day. I should say some were found bad before they were heated; before prepared for eating.

2969. Were they opened then after they were cooked?—Always. The case is put into the water, opened after it becomes sufficiently heated, and then served out.

2970. Was the smell of those meats very bad?—Very bad indeed.

2971. Those that were bad were very bad?—Those that were bad were very bad.

2972. Did it occasion great annoyance on board?—Yes, for the time, but it was instantly thrown over.

2973. Were they opened on the deck or below?—They were opened below; some on the main deck to make up the quantity for the different messes, the remainder by the men at the mess-tables; they were opened when issued, and any found bad brought to the quarter-deck for the survey.

2974. You must know pretty well from what passed what was the proportion; can you tell what proportion of those meats was good or bad?—I could not undertake to say that; there was no case ever issued which was at all questionable; it was immediately condemned and replaced.

2975. Sir *F. Baring.*] Do you remember what was the most that was condemned in the course of a day?—I never condemned any; I never was on a board of survey.

2976. You saw them condemned?—Yes; I suppose there were about three.

2977. Three a day?—No, not in the proportion of three a day.

2978. That was the proportion in one day?—Yes, I think I have seen three of one issue condemned.

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2979. How many were issued of those canisters in the course of a day?—The canisters varied in weight; some were 10 lbs., some 8 lbs., some 32 lbs. Then we had to issue rations to over 500 men, at the rate of two-thirds of a pound.

2980. About how many canisters a day; would they vary?—I could not tell the number; they generally, if not always, varied.

2981. Were there issued 10 canisters or 20 canisters; about how many?—One canister may be 32 lbs.; that would serve a great many; there would be fewer canisters of 32 lbs. weight; if you got them of less weight there would be more.

2982. You never counted how many there might be?—I did count them, it being necessary to do so to ascertain if the proportion of meat was received, but I cannot tell the number on any day.

2983. You cannot speak as to what the minimum number would be that were issued?—No, I could not.

2984. *Chairman.*] Several were 32 lb. canisters?—Yes, I think so.

2985. Were the majority of the meats which were served out to your men in large canisters?—We used to get a proportion of each I think to make up the weight.

2986. Which did you consider the best; that in the small canisters, or that in the larger canisters?—I do not think there was any difference; there was some condemned of each.

2987. You did not observe that the larger canisters were more frequently condemned than the smaller ones?—I did not.

2988. You perfectly recollect that some of each were condemned?—Some of each were condemned.

2989. And were in a state unfit for human food?—They were unfit for food; they were quite tainted.

2990. Did you observe any of the substances that were contained in those canisters?—There appeared to be a great deal of fluid I think, and the meat was in shreds, as it were. I never opened one out to examine it; the smell was quite sufficient to have it sent up.

2991. It was in a state of decomposition, and very offensive?—Yes, certainly; those that were condemned.

2992. Mr. *Miles.*] Did you happen to see the canisters or any of them after they had been removed from store, and previously to their being put into boiling water?—Yes, I always received them in that state first.

2993. Did

2993. Did you perceive any smell previously to their being put in the boiling water?—On some occasions I have.

2994. Was that a general remark, or only a remark that occurred occasionally?—I think only occasionally; it was principally after being boiled and opened that they were discovered to be bad.

2995. Were you in the habit yourself of going into the store-room?—Not into the store-room; the cases were brought up from the hold in casks to the main deck.

2996. Were you in the habit of visiting that part of the ship which contained those cases of meat?—Yes; that part under which they were placed.

2997. Did you observe any fœtid smell, when visiting those parts?—No, not that I recollect.

2998. That you were in the habit of doing after you were appointed quarter-master?—Yes, I went round the lower deck every day.

2999. Then the only complaint you make is that a great number of them were fœtid when they were opened for issue?—A great number of them were, and the discovery that any (whether opened or otherwise) were bad was only made after the cases were taken from the casks in which they were packed.

3000. Lord *C. Hamilton.*] Was the smell very offensive on those occasions?—Very offensive, and pervaded the whole ship.

3001. When they were opened, were the contents of the canisters kept separate?—Yes, they were, except when there was a division among the men.

3002. I mean that a bad canister of meat would not be mixed with or touch the others?—Yes, it would in the boiling, because they were all put into the copper together.

3003. But, after opening, the contents would not be contiguous so as to affect them all?—No; any bad ones were instantly removed.

3004. Still the contents were such that a man must have been aware of them?—Yes, perfectly so.

3005. Did that create much discontent in the minds of the men?—Yes, the men did not relish that food at all.

3006. Not even when good?—Not even when good; it is perfectly well known, on several occasions, they have gone without anything during the day excepting their biscuit when this meat was issued; although it may have been free from taint in every way, they did not consider it palatable or nourishing; they disliked it exceedingly. I think on account

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of their dislike to it, upon the recommendation of the doctor, the issue was suspended a very long time, and pork and beef were issued alternately; this was early in the voyage, and during the time when cholera prevailed most.

3007. Sir *F. Baring.*] Do you think they disliked the meat, or was it that they thought the meat was tainted?—They did not relish it at all in any way, not even the canisters that were perfectly good.

3008. Was it that they did not like the preserved meat, or was it that it arose from the knowledge that a great number of the canisters had proved corrupt?—No; I think from the very first they did not like it.

3009. What state of health was your regiment in when you embarked, in other respects?—I think in a very good state of health.

3010. As to your recruits?—There were a great many recruits; we raised a good many at that time.

3011. You cannot give us the number on the sick list, can you, when they embarked?—I suppose about 30 or 40.

3012. Not more than that?—Not more than that, I should say. During the voyage it rose considerably; I have known sometimes 70.

3013. Colonel *Chatterton.*] Were you on any board of survey on the preserved meats?—Never.

3014. You say the men refused to take the preserved meats, because they were not good?—They did not refuse to take them; they always took them as issued. But the men have been known to throw them overboard afterwards; they did that with their own messes. Unless the meat was tainted it could not be condemned, and consequently being the ration prescribed for the day it should be served out.

3015. Was it from any apprehension that it would give them the cholera that they refused to eat it?—I have heard from one or two, that the men thought it did promote the disease. I never inquired generally about it, but I understand that was the feeling among them; they thought it did conduce to the disease; that was an idea of theirs.

3016. Mr. *Gwyn.*] What number of men died on board from cholera?—We lost 10 men from cholera, one officer, and one woman.

3017. Did any of the crew die?—Yes, four of the crew.

3018. Were they kept upon this meat as well as your men?—Yes, I should say so.

3019. They fared alike with your men?—The issue as to days was the same.

3020. Lord

3020. Lord *C. Hamilton.*] Did the seamen have the same disinclination to the use of those meats as your own men?—That I do not know. *J. Leyne, Esq.* 30 April 1852.

3021. Mr. *Fordyce.*] Do I understand you accurately, that the men thought the cholera conduced by those meats?—So I have heard; I suppose they were in a state of alarm; there were several causes assigned; some attributed it to the great proportion of vinegar they used to consume, which was stopped afterwards.

3022. Colonel *Chatterton.*] Do you suppose the change from salt meat to fresh there caused the illness on board, and the emaciation among the men, and that they suffered in fact for want of having fresh meat?—I do not know that I could answer that question.

Captain *James Rawstorne,* called in; and Examined.

3023. *Chairman.*] ARE you a Commander in the Navy?—I am a Commander in the Navy. Capt. *J. Rawstorne.*

3024. Were you in command of the "Apollo" troop-ship in 1849?—Yes, I commanded the troop-ship "Apollo" in January 1849.

3025. Did you embark the 59th regiment at Cork?—Yes, on the 12th June.

3026. And you sailed on the 17th?—On the 17th.

3027. What was the state of health of the men of that regiment, when they embarked on board the "Apollo"?—They appeared very shortly when we had been at sea in a very sickly state; it was a remark made on looking down from the poop to where the men were with their coats off to be examined by the surgeon, that there was a great hollowness in the neck, which evidently bespoke their having suffered much from a debilitated state of health; that was the impression we had.

3028. When did the cholera first make its appearance on board?—A man died the day after sailing, but at the same time we were not aware it was the cholera. He had requested a person to throw a bucket of water over him on his head, supposing it would be of service to him, and we supposed that he had died from that cause at first; but from the symptoms which afterwards manifested themselves, and others succeeding some time afterwards, there was no doubt in the medical man's mind that it was cholera.

3029. You took a certain quantity of fresh meat on board when you sailed?—I think we took enough for two days. I am not quite certain at this period, but we expected to sail every

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every day, and on the day after the regiment embarked, we took as much on board as would last us for two or three days after sailing, but we did not sail until the 17th of June, which was five days after they were embarked.

3030. Where was your ship victualled?—We victualled at Portsmouth.

3031. When?—The latter end of May; about the 25th of May we were fitting at Portsmouth.

3032. And you went from Portsmouth to Cork for the purpose of embarking this regiment?—Yes.

3033. Did you victual from the Clarence Yard?—Yes.

3034. What was the nature of the provisions you took on board?—Every species of provisions; salt beef, and pork, preserved meats, rice, and flour.

3035. Did you see the preserved meats yourself previously to their being sent on board the "Apollo"?—No.

3036. Did you know in what size canisters they were sent on board?—I think the canisters varied in size from eight pounds to 30 pounds.

3037. Did you issue any of those preserved meats to the crew before you arrived at Cork?—Not before we arrived at Cork; it was the usual practice to issue them every fourth day; beef, pork, then beef again, then preserved meats; that is the system of the Navy.

3038. When did you commence the regular issue of those meats; on the fourth day?—I think after we sailed from Cork.

3039. When the fresh meat you had taken on board was exhausted?—Yes; that came in its regular turn on the fourth day of salt provisions.

3040. Had you been in the habit of using these preserved meats before on board the "Apollo"?—Yes, in the voyage to the Mediterranean.

3041. Were there many complaints previously to this voyage of the 59th regiment in respect to them?—No; as far as I can recollect I do not recollect that we had any complaints; there might have been a stray case of preserved meats now and then that were bad, but I do not recollect there being any myself.

3042. Upon this voyage did the complaints become more frequent?—They became more frequent on our return home; they were more frequent than they had been going to the Mediterranean; they found a greater quantity of them damaged.

3043. Do you know who was the manufacturer of those meats?—No.

3044. Have

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3044. Have you any idea in going out to Rio what proportion of those meats was bad, or how frequent the complaints were made that they were bad?—No, I cannot exactly tell you; but they were so frequent that instead of issuing an order for a survey, I was obliged to issue a standing order for a survey, what we call a running survey, so that on a case of preserved meat being complained of it was reported to me by the officer of the watch, and the same surveying officer immediately proceeded to examine it and report upon it, and then I gave an order for good meat to be issued in its stead.

3045. Was that survey held upon meat that was issued to the soldiers as well as to the sailors?—Yes.

3046. Your officers then surveyed the meat, and not the military officers?—No; at 12 o'clock, when the troops' dinner was ready, the captain of the day, accompanied by the subaltern of the watch, proceeded round the decks to inquire whether there was any complaint of the meats or their dinner, or any of the rations.

3047. And those complaints became so frequent upon this voyage that you found it necessary to have a standing board; that is, there was a board constantly sitting for the purpose of survey?—Of the preserved meats.

3048. A board of survey?—Not a board of survey, but a running survey; merely two officers were appointed to attend to that particular duty, the master and the first lieutenant.

3049. Those meats were discontinued for the use of the troops?—Yes.

3050. Do you recollect at what period that was?—I am sorry to say I have not any private memorandum to assist my memory as to that. I think for nearly two months they were discontinued.

3051. Did you discontinue them for the use of the crew as well?—No.

3052. Did the crew like those provisions as well as the salt meats?—The preserved meats in their best state were never so much liked by the sailors or the troops as the salt provisions.

3053. Of course those frequent condemnations tended to make them more unpopular?—I am not aware of that; I cannot take upon myself to say that; but I ought to mention, that when the meat was opened, in the first case proving bad, I issued an order that the preserved meat should be always opened on the upper deck, which was always done, and then if it was discovered that it was too bad to be issued, immediately a survey took place; it had not found its way into the mess

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mess before it was discovered, but it was condemned on the quarter-deck.

3054. Did you adopt that plan of opening it on the upper deck to prevent the effluvia?—To prevent any effluvia that might arise below in a crowded ship.

3055. Was that very offensive at times upon opening those canisters?—Some of them were very offensive; there were one or two instances I recollect where they were thrown over the lee gangway immediately, and they were never opened below.

3056. Sir *F. Baring.*] Was there any smell arising from the meat before it was opened?—None.

3057. Was there ever any complaint made to you by either of the surgeons of the regiment, or the officers of the regiment, to that effect?—Never, to the best of my recollection.

3058. I do not know whether you had any communications in writing from the medical men; did they ever state to you in writing that there was any injury arising from the meat, either after it was opened or before it was opened?—I never had any statement to that effect; I always considered that the canisters being packed in casks, and entirely surrounded with sawdust, that that would entirely prevent any effluvia from escaping, or any gas from any of the preserved canisters; indeed it was never discovered until they were opened.

3059. You cannot give us the quantity condemned?—No, I cannot, but I believe the purser can.

3060. Lord *C. Hamilton.*] I understood you to say, that the use of those meats was discontinued for two months; could you state whether there was any difference in the health of the crew during that period, and whether there was any change or improvement?—My own opinion was, and I believe it was the opinion of the officers on board, and the medical men, that the troops had wonderfully improved since embarking at Ilha Grande, where they had been fed on fresh provisions and been on shore; their health was considerably improved, not only physically but in their general appearance and spirits and everything else; that might be attributed to their having been fed on fresh beef.

3061. My question went to, whether the discontinance of the preserved meats and taking the ordinary salt provisions had any effect?—I could not say that.

3062. Was it ever reported to you, that a number of men would not make use of their rations, owing to their dislike to the preserved meats?—I have a letter from the surgeon to the

the commanding officer, which I think bears upon that particular point.

3063. *Chairman.*] Does it refer particularly to the meats?—Yes; it observes that the men did not like the preserved meats. This is it:—

SIR, H.M.S. "Apollo," 26 July 1849.

I HAVE the honour to make the following representation in reference to the amount of sickness amongst the troops under your command on board this ship, and beg you will be pleased to submit the same to the commander for his consideration. The continuance of so much sickness I must regard as very unusual. Disease, and that of a malignant nature too, seems on the increase instead of disappearing, as I had every reason to expect, the further we proceeded to sea.

I beg to observe here, that on reaching Madeira, having such a disease on board, I ordered a Medical Board immediately to be summoned of all the medical officers, to consider whether, under such circumstances, it would not be desirable to return to England, or proceed to Gibraltar, so that the troops might be landed. They gave it me as their opinion (I think in writing, but I cannot find the document), that as the men had left an unhealthy atmosphere and were changing climate every day, the chances were, as we were now free from places of contagion, that the health of the troops would improve, and that we should get rid of the disease altogether.

Several cases of cholera having presented themselves within the last six and thirty hours, and I deeply regret to add, that, as you are of course aware, two of three proved fatal in the short space of 12 hours. Under these circumstances the commander, Captain Rawstorne, having already done all in his power in adopting such hygienic measures as are practicable on board ship, in the way of fumigation, ventilation and insuring cleanliness, as well personal as otherwise, the only thing I now see as likely to effect a change for the better in the health of the men, is the adoption of a more liberal scale of diet. The quality of the rations at present issued appears good, and, under ordinary circumstances, the quantity may be sufficient, but considering the description of men we have on board, the greater number of them recently enlisted from the ill-clad and ill-fed pauper population of Ireland, and exposed to disease as they have been when quartered there, their constitutions appear to me but ill adapted to endure with impunity the exposures necessarily incident to their position on board, and I am inclined therefore to believe that the use of a more liberal diet would conduce materially to the disappearance of disease from amongst them. We have already had some proof of this in the manifest change for the better, which took place in the appearance and health of the men after the supply of fresh rations which they received at Teneriffe. I would accordingly beg most strongly to recommend

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recommend that full rations be issued to them, for a time at least; and as the great majority are quite unable to make use of cocoa to breakfast, would beg to suggest the issue of tea instead. They at present eat their biscuit with a little cold water. The preserved soup and meat they are also unable to use, the greater portion being thrown overboard by them. If it were possible to give them an oatmeal supper daily instead of tea in the evening, I think it would be extremely advisable. I find they have been accustomed to an oatmeal diet, and are very fond it. I would lastly beg to suggest the propriety of issuing to them early in the morning half the usual ration of rum, but this I do not regard of so much importance. In fact, I believe that a cup of hot tea or coffee would be better for them; but as that appears to me impracticable at that early hour I recommend the other. Hoping that these suggestions may meet your approval, and that you will be pleased to recommend their adoption,

I have, &c.
(signed) *Thomas Fraser*, M. D.,
Assistant Súrgeon 10th Hussars,
in medical charge 59th Regiment.

To Lieut.-Col. Trevor, K. H.,
Commanding 59th Regiment.

There are letters recommending change of diet.

3064. Sir *F. Baring.*] Were those requests all complied with?—They were all complied with.

3065. Admiral *Bowles.*] Were there any others having any reference to the preserved meats?—I think there is one in which Dr. Fraser recommends the preserved meats to be re-issued, notwithstanding the men disliked them.

3066. Why could not the men use cocoa for breakfast?—I cannot tell you; I thought it a most beneficial thing for them.

3067. Sir *F. Baring.*] If you have got a letter from the surgeon of the regiment recommending that the preserved meats should be re-issued, will you read it?—This is the letter that bears upon it.

H. M. S. "Apollo," Albroo Bay,
Sir, Ilha Grande, 16 August 1849.

THERE being an obvious disposition to bowel complaints and other ailments connected with derangement of the digestive organs amongst the troops under my charge, I have reason to believe that, on their proceeding to sea, and returning to the usual boardship rations, the use of rice alternately with flour, until their health appeared permanently improved in this respect, would be found more suitable and wholesome than the constant use of the tough, comparatively indigestible, flour pudding, which has hitherto formed a part of their ration with the salt provisions.

I have therefore the honour to submit this for your consideration, in the hope that such an arrangement may be practicable, without much inconvenience or detriment to the service.

With

With regard to the preserved meats, notwithstanding the men's dislike to them, I must recommend that their issue be resumed according to the regulations of the service.

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I have, &c.
(signed) *Thomas Fraser*, M.D.,
Assistant Surgeon, 10th Royal Hussars,
in medical charge 59th Regiment.

Lieutenant-Colonel Trevor, K.H.,
&c. &c. &c.

3068. Mr. *Miles.*] So that from reading those two letters it appears that the further they went the better they were?—Yes.

3069. Lord *C. Hamilton.*] Do you take that letter to contain a recommendation for the use of the preserved meat?—Yes.

3070. Admiral *Bowles.*] Did you in point of fact resume the use of the preserved meat after that letter?—Yes.

3071. Lord *C. Hamilton.*] Did the men take to it again, or did they entertain their former prejudice against it?—I believe they partook of it afterwards.

3072. Colonel *Chatterton.*] Do I understand you right, that you perceived no bad smell about the ship at all?—None; but you must be perfectly aware that there was a great mass of human beings going into the tropical latitudes; their very clothes from constant perspiration (although we effected everything we possibly could to remedy it), will produce a malaria which is at all times disagreeable, and it is very obvious it must be the case.

3073. Was it at your suggestion or his own that Colonel Trevor appointed some non-commissioned officers to go about the ship to endeavour to discover from whence the bad smell emanated?—I never heard of that; I beg to mention that, when the men paraded on deck at 10 o'clock, as well during the period of sickness as health, I went round the decks myself with the first lieutenant and captain of the day and a staff of the master-at-arms, and various people, non-commissioned officers.

3074. Did you go at night?—No, not at night, it was not my duty; the first lieutenant went every night with the captain of the day.

3075. Do you think the apprehension of catching the cholera from the use of that preserved meat prevented the men from taking it?—No, I never heard of it.

3076. How long did you continue opening the preserved meat below?—Almost immediately after we sailed from Cork;

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Cork; I gave the order immediately I found upon opening one there was effluvia emitted.

3077. Were those preserved meats put on board in casks?—Yes.

3078. You never saw them until they were taken out of the casks?—No; I saw some of the casks opened myself.

3079. You did not perceive it before that?—No.

3080. Do you know what contractor supplied it?—No; we got it from the victualling yard at Portsmouth.

3081. You do not know what contractor supplied it the name was not upon the canister?—No; they have not any labels upon them, I believe.

3082. There were no marks?—I think not; it is only that preserved for medical comforts or private stock that have the name; I am not aware of any name being upon them.

3083. Admiral *Bowles.*] Do you impute the sickness on board in any degree to the provisions, or any part having been bad and unwholesome?—Decidedly not; the letter I just read of the surgeon of the 10th Hussars, states the provisions were good in quality at that time; he makes that remark.

3084. You consider that the soldiers when they came on board, were from other circumstances predisposed to illness of all kinds, that they were thin, debilitated men, who had been starved, in consequence of the famine in Ireland previously?—They certainly were very much in that state, and it was on this case of cholera occurring on board the day after we sailed that it came to be talked about; it was not reported to me as a cholera case; I then understood the regiment had lost three or four men from cholera before embarkation; that I was not aware of before.

3085. Colonel *Chatterton.*] Did you command the "Apollo" on her return from Hong Kong to England?—Yes.

3086. Had you preserved meat on board?—Yes.

3087. Was it good or bad?—Much the same as those cases used before.

3088. Mr. *Fordyce.*] Did the two seamen and marines that died, die of cholera?—Yes, the most malignant cholera; indeed a man was attacked at six o'clock in the morning, and was buried at six o'clock in the evening.

3089. Sir *F. Baring.*] When you sailed were you aware that there had been cases of cholera in the regiment?—No.

3090. Mr. *Fordyce.*] Were the cases of preserved meat opened before being put into the coppers?—No, they were put into the coppers to be boiled before they were opened.

Mr. *Henry Roger Cole*, called in; and Examined.

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3091. *Chairman.*] ARE you in the Royal Navy; I am paymaster and purser in the Royal Navy.

3092. Were you on board the "Apollo" troop-ship in 1849?—I was.

3093. Do you recollect the 59th regiment embarking at Cork in the June of that year?—Perfectly.

3094. Had you heard at that time of any sickness in that regiment before they embarked?—Yes; the regiment had been located in the immediate neighbourhood of the cholera, and I believe a few men died of that disease prior to the embarkation of the regiment.

3095. Was it known to you at the time the regiment embarked?—I think we were kept there several days for the purpose of seeing whether any cases would break out on board while we were there, as, if so, I think the regiment would have been disembarked.

3096. You attribute your delay to that circumstance?—I was under that impression; whether I am correct or not, I cannot say.

3097. Had you, previous to embarking this regiment at Cork, been to Portsmouth?—We went from Portsmouth to Cork.

3098. And did you victual your ship at Portsmouth from the Clarence Yard?—Yes.

3099. Do you recollect the proportion of preserved meats which you took on board with regard to the other meats?—I think at that time we issued preserved meats once in four days.

3100. Do you recollect the proportion that you took on board at Portsmouth?—No; I have not any papers with me; if I had had notice of any information I should have been required to give, I could have referred to my books at the Admiralty, and obtained any information that was required.

3101. Admiral *Bowles.*] What would be the usual proportion if they victualled for six months; of course it would be a certain proportion?—It would be a certain proportion with regard to other species of provisions.

3102. *Chairman.*] For what period were you victualled?—I think for four months.

3103. Including the troops?—The troops and the ship's company included.

3104. Did you commence issuing the preserved meats to the crew immediately?—According to the regular service, we

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took them on; as the day for issuing preserved meats arrived, so it was issued.

3105. Therefore upon the fourth or fifth day after sailing from Cork you issued them?—About the fifth, I think; we took fresh beef with us from Cork enough for two if not three days.

3106. A case or two of cholera had taken place on board previous to issuing those preserved meats to the ship's company?—I think a case occurred the day following the sailing; I am not certain of it; I think it was the day after our leaving Cork.

3107. And that was previous to your having issued the preserved meats?—That was previous to our having issued the preserved meats.

3108. Had you seen the cases in which those preserved meats were at Portsmouth, or were they then enclosed in casks?—They were in casks.

3109. Therefore you did not see the cases until they were opened?—No, we never see them until they are opened.

3110. Are you aware what contractor those preserved meats were supplied by?—I have no idea who it was; I do not think the contractors' names are mentioned on the canisters; they are on the package of provisions generally; the contractors' names are marked on the casks, the date of supply, and the time they are warranted to keep good.

3111. There were no labels on the canisters?—Yes, there were; there were paper labels, such as you see in shops in the town; I really forget who they were.

3112. You do not recollect whose name was upon them?—No; I had no object in noticing whose they were.

3113. How many years have you been in the habit of issuing, for the ship's company and others, those preserved meats as regular rations?—I think the commencement was in 1846; I cannot speak with certainty upon that point.

3114. You have on voyage, previous to this voyage, issued them?—Yes, I issued them regularly, I think once a week; we used to issue them first when I was in the "Amazon," in the Mediterranean.

3115. Were the condemnations of that former period as frequent as the condemnations which occurred on board the "Apollo" in 1849?—I think not.

3116. Do you think the quality of the meat was superior to that which you had in 1849?—Some parts of this meat were very good. I have eaten it in our mess, when our own fresh rations were getting short; we on different occasions had our

our proportions of the rations which is allowed us used in mess.

3117. And some was very good?—Some was very good.

3118. Have you any account to show what proportion was bad of that meat which was used on the voyage I am now inquiring into?—I think the whole time the ship was in commission, the amount of condemnation was about 19 per cent. on the whole quantity opened for issue.

3119. Mr. *Miles.*] That takes the outward and homeward voyage?—Not only that voyage, but the whole time the ship was in commission.

3120. Admiral *Bowles.*] How long was she in commission?—Two years and a half.

3121. *Chairman.*] Can you tell us what the proportion was upon this particular voyage?—No, I cannot; I could easily obtain that, and give you that information to-morrow, or Monday, by referring to the books at the Admiralty, and any other information of the kind. I have no date to go by; I have not the documents with me.

3122. Mr. *Miles.*] Were the condemnations larger on this voyage with this regiment than they had been with other regiments?—I think not.

3123. Lord *C. Hamilton.*] Does 19 per cent. represent the average condemnations?—I think that is the average of the whole on the quantities issued during the two and a half years.

3124. Mr. *Miles.*] How were those casks stowed in the hold?—Precisely the same as the other provisions.

3125. Was there any sawdust used?—There is sawdust in the casks to keep the canisters together.

3126. Was there any sawdust used outwardly, on the outside of the casks, to keep them from rubbing against each other?—No, they were stowed precisely as the others were, jammed up, one keeping the other in its place.

3127. Colonel *Chatteron.*] In taking the canister out of this cask with the sawdust, did you perceive that they were in any way indented and battered?—Yes, many casks were very much indented.

3128. Did you perceive that those 10 cases that were battered had a bad smell?—No, we noticed no difference in the contents of the indented cases, and those perfectly straight from the state in which they were packed.

3129. You did not smell any bad smell that came from the indented cases?—We did not. Indeed those that were discovered to be bad before being cooked were generally found

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to be bad owing to a little aperture from some cause being made in the canister; then the stench was so bad that they used to be thrown overboard immediately.

3130. From your experience in these preserved meats, would you know whether a case of it was good or bad before opening?—Certainly not; it cannot be bad unless the air gets to it.

3131. Were you purser of the "Apollo" when she came from Hong Kong to England?—I was.

3132. Had she any of that preserved meat on board?—We had a large quantity.

3133. Was it good or bad?—We had good and bad together.

3134. Which predominated, good or bad?—That I do not know. From the quantities we condemned, I made an application to my Commander-in-Chief at the station, to have all the preserved meat on board landed at the Victualling Yard.

3135. Then a great quantity of it was bad?—What was bad or good after it was returned to the dockyard, I do not know; I dare say the good was shipped to other places.

3136. What you opened was perfectly unfit for any human being to eat?—Some of it was, and some was remarkably good.

3137. Admiral *Bowles.*] I think you said the proportion was about 19 per cent. on the whole quantity?—Yes, on the whole quantity opened; that includes what was used; in fact the whole was opened.

3138. That was the case on coming home, as well as going out?—That is taking the whole quantity opened during the commission, and the whole quantity condemned.

3139. Then three-fourths and more were good?—Yes.

3140. Sir *F. Baring.*] You received the preserved meats, did you not, when first put on board?—We received it from the victualling stores with the other provisions.

3141. Was there any smell at all from those casks at that time?—Not the slightest, that we could discover.

3142. Do you remember at any time when they were stowed below, that there was any smell arising from the cask?—I never remember anything of the kind being discovered that I am aware of.

3143. Did you ever hear of any complaint from the officers of the regiment, or the medical officers of the regiment, of a smell from the casks?—No, there was a smell from a part of the ship of which I made a small memorandum. A smell

was

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was discovered in one part of the ship, and if you will allow me I will read the memorandum I then made:—"With regard to any unpleasant effluvia arising from any part of the ship, if I remember correctly, there was at one time a disagreeable smell complained of in the vicinity of the main-mast, on the main deck, and I believe the surgeon of the ship supposed that it originated in the pump well; water was pumped into it, and then pumped out, for the purpose of removing any description of dirt that might have found its way there, after which a quantity of the chloride of zinc was used to purify the place; and indeed every part of the ship was occasionally subjected to the same treatment, particularly the holds and other confined parts."

3144. That shows what you are speaking of was not once alleged to arise from meat?—It was not at all supposed to have arisen from the preserved meats.

3145. *Chairman.*] Do you recollect the order being given by the captain to have this meat opened on the upper deck?—Yes, perfectly.

3146. That was acted upon?—It was always acted upon.

3147. That was in consequence of the smell of it after it was opened?—Some had been opened below, and the stench of those canisters, having small holes perforated in any way, was so great, that the captain thought it was unwholesome to have it opened below.

3148. Mr. *Fordyce.*] Do you think the preserved meats are not looked upon with favour by the seamen?—I do not think they are; I think it is generally prejudice. They do not think that there is any nourishment in them.

3149. Do they often refrain from eating it?—I think not. The sailor does not like to refuse his rations, even if he complains. He is a creature of complaint, I think generally. He is almost always finding out some cause of complaint which he fancies there is, whether there really is cause or not. They are a very dissatisfied set of men. I certainly did not think the preserved meats gave reason for complaint.

3150. Lord *C. Hamilton.*] They were peculiarly unpopular during the prevalence of the cholera?—The soldiers disliked them very much generally.

3151. Do you remember whether after they had been discontinued for two months and were resumed, both the soldiers and sailors were more reconciled to them?—They were never discontinued by the sailors, only by the soldiers. The sailors' rations went on regularly throughout.

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3152. The men were more reconciled after that?—I think they were, but then they had lived well on the best of beef that could be procured for five weeks.

3153. I suppose there would be no difficulty in ascertaining what contractors served those provisions?—They must know at the establishments.

3154. Sir *F. Baring.*] What was the appearance of the regiment when it embarked, healthy?—Very bad indeed. They appeared to me to be in a half starved condition, and I remember that remarks were made by myself and the other officers of the ship, and some of the officers of the regiment in reply said that they were almost in a state of starvation when enlisted. It appeared that the regiment had been reduced; then this affair occurring in China, immediate orders were sent to the regiment to recruit to a certain strength. It was stated that the major part of them were raw recruits.

LIST OF APPENDIX.

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APPENDIX.

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COPY of CONTRACT with *S. Goldner*, Esq., dated 2 May 1850.

PRESERVED MEAT.

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Contracted and agreed upon this 2d day of May, in the year of our Lord 1850, by and between Stephen Goldner, of Houndsditch, in the City of London, preserved provision manufacturer, of the one part, and the Commissioners for executing the office of Lord High Admiral of the United Kingdom of Great Britain and Ireland (for and on the behalf of Her Majesty, her heirs and successors), of the other part, as follows—thatis to say, the said first-mentioned contracting party doth hereby for himself, his heirs, executors and administrators, covenant, contract and agree to and with the said Commissioners to supply and deliver into store, free of all charge and risk to Her Majesty, into Her Majesty's victualling yards at Deptford, Gosport and Plymouth, strictly according to the conditions hereunto annexed, 500,000 lbs. in the aggregate of preserved boiled beef.

And it is hereby also covenanted and agreed upon by and between the said parties hereto, that the several clauses, articles, powers, provisoes, matters and things mentioned and contained in the said conditions hereunto annexed, and not herein or hereby altered, shall be as fully and effectually binding on the said parties respectively as if the same had been particularly repeated and expressed in the body of this present contract.

And it is agreed that upon the said first mentioned contracting party producing to the said Commissioners, at their office in Somerset-place, London, a certificate or certificates, signed by the proper receiving officers of the said Commissioners at Deptford, Gosport and Plymouth aforesaid, of the right and true delivery of the beef hereby contracted for, the said first mentioned contracting party shall be paid for the beef so delivered at the following rates, namely, for the proportion thereof which shall be delivered in canisters, each containing 12 lbs., at the rate of $4\frac{3}{4}d.$ per pound; for the proportion thereof which shall be delivered in canisters, each containing 9 lbs., at the rate of $5\,d.$ per pound; and for the proportion thereof which shall be delivered in canisters, each containing 6 lbs, at the rate of $5\,d.$ and one-eighth part of a penny per pound, which said rates shall include the value of the canisters in every case, by bills to be drawn upon Her Majesty's Paymaster-general, payable at sight.

And

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And it is hereby provided that the said first mentioned contracting party shall, upon the presentation of the vouchers required for the purpose of obtaining payment for the beef delivered under this contract, transmit (under sealed cover addressed to the Accountant-general of the Navy) a statement or abstract, in the form of a bill of parcels, of the true and correct quantity of beef so delivered, and of the sum payable for the same, calculated at the prices specified in this contract.

And the said first-mentioned contracting party doth covenant, engage and warrant that all the beef which shall be supplied and delivered under this contract shall keep, remain and continue perfectly sound, sweet and good, and fit for use, for the full period of five years, to be computed from the respective dates of the said certificates of its delivery into Her Majesty's stores; and it is provided and agreed that in case any part thereof shall, upon any survey or surveys of the same, to be made at any one or more time or times within the said period, either in Her Majesty's stores, or on board any of Her Majesty's ships or vessels, or any transport vessel in Her Majesty's service, be found by the proper officers making such survey or surveys, or by the major part of them, to be by reason of unsoundness or defect in quality or condition not fit for the use of Her Majesty's service, which survey or surveys shall and may be made by the proper officer or officers, agent or agents of the said Commissioners, or by any other officer or officers in Her Majesty's service, whether naval or otherwise, then and in every such case it shall and may be lawful for the said officers to condemn the same, which condemnation the said Commissioners producing and showing to the said first-mentioned contracting party, if required, the reports, vouchers or other documents, or written evidence of such survey and condemnation, shall be conclusive on the subject.

And it is expressly declared and agreed by and on the part of the said first-mentioned contracting party, that in the event of his failing to deliver the aforesaid quantity of beef within the time, and in the proportions, and of the quality and goodness mentioned in the said conditions, or if any part of such beef shall, upon any such survey as aforesaid, be found unsound and be condemned as aforesaid, then and in either of the said cases, and as often as the same shall happen, it shall and may be lawful for the Commissioners for the time being to cause to be purchased, in any manner they may think proper, any quantity or quantities of beef as shall be equal to that or those which the said first-mentioned contracting party shall fail to deliver with respect to time or quality, or which shall be condemned as aforesaid; and the said first-mentioned contracting party doth agree that it shall and may be lawful for the said Commissioners, or the Commissioners for the time being, to stop and abate from any bill or bills then made out and undelivered, or to be made out to the said first-mentioned contracting party, on this or any other contract, not only the full amount of the value of the said beef, calculated at the price stipulated in this contract, in case the said first-mentioned contracting party shall have received payment for the same, but likewise the full amount of the surplus cost, if any, of the beef so purchased beyond the said stipulated price, together with all costs, charges,

charges, damages and expenses attending the purchasing or procuring the same; and if there shall be no such bill or bills, or if the same shall not amount to a sufficient sum, then the said first-mentioned contracting party doth oblige himself, his heirs, executors and administrators, to pay and make good the same to Her Majesty in such other manner as the said Commissioners for the time being shall require, over and above the sum of 3,000 *l.* hereinafter mentioned, as stipulated or ascertained damages for the breach of this contract, or any part thereof.

And it is also agreed that in case of any breach of this contract on the part of the said first-mentioned contracting party, it shall be lawful for the said Commissioners, by writing under their hands, or under the hand of their secretary, to determine this contract without any previous notice to the said first-mentioned contracting party, nor shall he be entitled to any compensation in consequence of such determination.

And the said first-mentioned contracting party doth further covenant, that with the first and last delivery of beef on this contract he shall and will produce, and leave at the office aforesaid, a written declaration signed by himself, that he hath not then directly or indirectly given, or caused or allowed to be given, or promised to give, nor will afterwards give, nor cause nor allow to be given, to any officer, clerk, or other person whomsoever, concerned in the receipt of the aforesaid beef, or employed under the said Commissioners, or otherwise in Her Majesty's service, or to any person or persons, on the behalf or for the benefit of any such officer, clerk or other person, any money or other thing as a gratuity, fee or reward for any matter in or relating to this contract, or to the supplies under the same.

And the said first-mentioned contracting party doth for himself, his heirs, executors and administrators, also covenant, contract, and agree to and with the said Commissioners, that he, the said first-mentioned contracting party, shall not and will not at any time or times during the continuance of this contract, transfer or assign the same, or any part, share or interest of, in or to this contract, or cause or procure this contract, or any part, share or interest of, in or to the same to be transferred or assigned to any person or persons whomsoever, without the authority and approbation of the Commissioners for executing the office of Lord High Admiral of the United Kingdom for the time being, which authority and approbation shall be of no avail unless the same, together with the assignment of the part, share or interest (which assignment it shall and may be lawful for them with such authority and approbation as aforesaid to make and execute) be indorsed hereon or annexed hereto, and regularly signed in the presence of a credible witness by two of the said Commissioners, and by him the said first-mentioned contracting party, and by the person or persons to whom this contract, or any part, share or interest of, in or to the same shall or may have been so transferred or assigned.

And the said first-mentioned contracting party doth hereby further covenant and engage that no Member of the House of Commons hath been or shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom.

And

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And for the due and faithful performance of all and singular the covenants, conditions, provisoes, clauses, articles, and agreements hereinbefore contained, which on the part and behalf of the said first-mentioned contracting party are or ought to be observed, performed, fulfilled or kept, the said first-mentioned contracting party doth hereby bind himself, his heirs, executors and administrators unto our Sovereign Lady the Queen in the sum of 3,000 *l.* of lawful British money, to be paid to our said Lady the Queen, her heirs and successors, by way of stipulated or ascertained damages, agreed upon between the said Commissioners and the said first-mentioned contracting party, in case of the failure of the said first-mentioned contracting party in the due execution of this contract, or any part thereof, and in addition to the surplus costs, charges and expenses which may be incurred by Her Majesty in the purchasing or procuring of any quantity of beef which the said first-mentioned contracting party shall fail to deliver as above mentioned.

In witness whereof the said parties to these presents have hereunto respectively set their hands and seals the day and year first above written.

S. Goldner. (L.S.)
Alexander Milne. (L.S.)
W. Cowper. (L.S.)

Signed, sealed and delivered by the said Stephen Goldner, being first duly stamped in the presence of

Charles Cunningham,
Vice Consul.
A. Melmevers,
Clerk to Vice Consulate.

Signed, sealed and delivered by the said Commissioners in the presence of

Jn° James.

CONDITIONS mentioned and referred to in the Contract hereunto annexed.

THE whole quantity of preserved beef is to be delivered within twelve months from the 2d day of May 1850 (free of all carriage and other expenses), into store at Deptford, Gosport, and Plymouth Victualling Yards, and in such quantities at each yard as the Commissioners shall from time to time direct, and one fourth part of the whole quantity is to be so delivered at the end of every two or three months, or at such other periods as may best suit the convenience of Her Majesty's service.

All the preserved beef to be of the best quality, and, as far as practicable, the meat to be in whole pieces, and no canister to contain any bone, offal-meat, intestines, vegetables, or any other meat or substances whatever, not permitted by the contract, and all the beef to be good and fit for the service, and such as the proper receiving officers shall approve of, otherwise they shall be at liberty to reject the same.

No

No more gravy to be put into any canister of beef than is absolutely necessary for the preservation of the contents, and all the gravy that may be supplied is to be of a strong and pure quality.

One-third of the preserved beef to be delivered in canisters, each containing 6 lbs. when opened, another one-third in canisters, each containing 9 lbs. when opened, and the remainder in canisters, each containing 12 lbs. when opened.

Note.—The pound weight is to contain 16 oz.

All the canisters to be made of tin plates of the best quality, and of a substance sufficiently strong for securing the preservation of their contents during the whole period of warranty of five years, and to be well and sufficiently painted on the outside, and to have a metal plate affixed to them, or to have stamped on them the initials of the contractor, the description and weight of the contents, and the date of the year when filled.

The contractor is to give timely notice to the Commissioners in writing of the periods when and where he intends to commence preserving the beef to be supplied under the contract, in order that, if they think it necessary, they may send an inspector to his factory to ascertain that the process is conducted in every respect in accordance with its conditions.

The officers at the respective yards are to have the power to open as many canisters when delivered as they may think proper for the purpose of seeing that the contents are agreeable to the terms of the contract, and the contractor is forthwith to remove such canisters with their contents, although of an approved quality, and to replace the same with other similar cases and contents, free of all charge for the canisters and contents so returned.

A mulct equal to the value of the canister and its contents will be inflicted on the contractor for every canister found on delivery, or at any time within five years from the date of the supply, to be deficient in weight, or to contain any bone, offal-meat, intestines, vegetables, or other meats or substances already prohibited, or any undue quantity of gravy, or gravy deficient in strength or purity, or whose contents shall have become putrid, or shall be deemed, on survey, unfit for consumption, either from collapse or bursting of the canister or from any other cause whatsoever, and the contractor shall also pay back all such sum or sums of money as he may have been paid for the same, and the amount of all such mulcts and repayments to be either deducted from time to time from any bill or bills payable to him, or to become otherwise payable to and recoverable by Her Majesty.

In case of any breach of the contract the Commissioners to have power to put an immediate termination to it without the contractor being entitled to any compensation, and also to have the power to purchase and charge the contractor with all extra expenses in case he fails in making the prescribed deliveries and replacing rejections at the said yards.

S. Goldner.

Signed in the presence of *Charles Cunningham*,
Vice-Consul.
A. Melmevers,
Clerk to Vice-Consulate.

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KNOW ALL MEN BY THESE PRESENTS, that we, Stephen Goldner of Houndsditch, in the City of London, preserved provision manufacturer, William Quilter of Coleman-street, London, accountant, and William Henry Ritchie of Holland-place, Brixton, in the county of Surrey, patent agent, are jointly and severally held and firmly bound unto our sovereign Lady Victoria, by the grace of God, Queen of the United Kingdom of Great Britain and Ireland, in 3,000 *l.* of good and lawful money of Great Britain, to be paid to our said sovereign Lady the Queen, Her heirs or successors, to which payment, well and truly to be made, we bind ourselves and each of us for the whole and our several and respective heirs, executors and administrators, and each and every of them firmly by these presents. Sealed with our seals. Dated this 2d day of May, in the year of our Lord 1850.

The condition of the above obligation is such that if the above-bounden Stephen Goldner, his executors or administrators, do and shall well and truly observe, perform, fulfil and keep all and singular the covenants, promises, articles, clauses, agreements, matters and things mentioned and contained in a certain deed under seal, bearing even date herewith, purporting to be a contract made between the above-bounden Stephen Goldner of the one part and the Commissioners for executing the office of Lord High Admiral of the United Kingdom of Great Britain and Ireland (for and on behalf of Her Majesty) of the other part, which on the part and behalf of the above-bounden Stephen Goldner, his executors or administrators, are and ought to be observed, performed, fulfilled and kept according to the true sense, intent and meaning of the said instrument or contract, that then the above obligation shall be void and of no effect, or otherwise shall be and remain in full force and virtue.

S. Goldner. (L.S.)
W. Quilter. (L.S.)
Wm Hy Ritchie. (L.S.)

Signed, sealed and delivered by the above-bounden Stephen Goldner (being first duly stamped) in the presence of

Charles Cunningham,
Vice-Consul.
A. Melmevers,
Clerk to Vice-Consulate.

Signed, sealed and delivered by the above-bounden William Quilter and William Henry Ritchie in the presence of

Jno James.

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COPY of CONTRACT with *J. Gillon*, dated 26 April 1850.

MEDICAL COMFORTS.

CONTRACTED and agreed upon this 26th day of April, in the year of our Lord 1850, by and between John Gillon, of Leith, in that part of Great Britain called Scotland, merchant, of the one part, and the Commissioners for executing the office of Lord High Admiral of the United Kingdom of Great Britain and Ireland (for and on the behalf of Her Majesty, her heirs and successors), of the other part, as follows—that is to say, the said first-mentioned contracting party doth hereby for himself, his heirs, executors and administrators, covenant, contract, and agree to and with the said Commissioners to supply and deliver, free of all charge and risk to Her Majesty, into Her Majesty's Victualling Stores at Deptford, strictly according to the conditions hereunto annexed, the following quantities of medical comforts, at and after the rates and prices undermentioned; that is to say,

1,000 lbs. of soup and bouilli, at 5½ *d.* per lb.
1,000 lbs. of boiled mutton, at 7 *d.* per lb.
1,000 pints of mutton broth, at 5 *d.* per pint.
1,000¼ pints of concentrated gravy, at 4¾ *d.* per ¼ pint.

And it is hereby also covenanted and agreed upon by and between the said parties hereto, that the several clauses, articles, powers, provisoes, matters and things mentioned and contained in the said conditions hereunto annexed, and not herein or hereby altered, shall be as fully and effectually binding on the said parties respectively, as if the same had been particularly repeated and expressed in the body of this present contract.

And it is agreed that upon the said first-mentioned contracting party producing to the said Commissioners, at their office in Somerset-place, London, a certificate or certificates, signed by the proper receiving officers of the said Commissioners, at Deptford aforesaid, of the right and true delivery of the articles hereby contracted for, the said first-mentioned contracting party shall be paid for the articles so delivered at the rates above-mentioned, by bills to be drawn upon Her Majesty's Paymaster-general, payable at sight.

And it is hereby provided that the said first-mentioned contracting party shall, upon the presentation of the vouchers required for the purpose of obtaining payment for the articles delivered under this contract, transmit (under sealed cover, addressed to the Accountant-general of the Navy) a statement or abstract, in the form of a bill of parcels, of the true and correct quantity of articles so delivered, and of the sum payable for the same, calculated at the prices specified in this contract.

And the said firstmentioned contracting party doth covenant, engage, and warrant that all the articles which shall be supplied and delivered under this contract, shall keep, remain, and continue perfectly

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fectly sound, sweet, and good, and fit for use, for the full period of five years, to be computed from the respective dates of the said certificates of its delivery into Her Majesty's stores. And it is provided and agreed, that in case any part thereof shall, upon any survey or surveys of the same, to be made at any one or more time time or times within the said period, either in Her Majesty's stores, or on board any of Her Majesty's ships or vessels, or any transport vessel in Her Majesty's service, be found by the proper officers making such survey or surveys, or by the major part of them, to be by reason of unsoundness or defect in quality or condition, not fit for the use of Her Majesty's service, which survey or surveys shall and may be made by the proper officer or officer's agent, or agents of the said Commissioners, or by any other officer or officers in Her Majesty's service, whether naval or otherwise, then and in every such case it shall and may be lawful for the said officers to condemn the same, which condemnation the said Commissioners producing, and showing to the said first-mentioned contracting party, if required, the reports, vouchers, or other documents or written evidence of such survey and condemnation, shall be conclusive on the subject.

And it is expressly declared and agreed, by and on the part of the said firstmentioned contracting party, that in the event of his failing to deliver the aforesaid quantity of articles within the time, and in the proportions, and of the quality and goodness mentioned in the said conditions, or if any part of such articles shall, upon any such survey as aforesaid, be found unsound, and be condemned as aforesaid, then and in either of the said cases, and as often as the same shall happen, it shall and may be lawful for the Commissioners for the time being to cause to be purchased in any manner they may think proper, any quantity or quantities of articles as shall be equal to that or those which the said first-mentioned contracting party shall fail to deliver, with respect to time or quality, or which shall be condemned as aforesaid; and the said first-mentioned contracting party doth agree that it shall and may be lawful for the said Commissioners, or the Commissioners for the time being, to stop and abate from any bill or bills then made out and delivered, or to be made out to the said first-mentioned contracting party, on this or any other contract, not only the full amount of the value of the said articles calculated at the prices stipulated in this contract, in case the said first-mentioned contracting party shall have received payment for the same, but likewise the full amount of the surplus cost, if any, of the articles so purchased beyond the said stipulated price, together with all costs, charges, damages, and expenses attending the purchasing or procuring the same, and together also with the mulcts mentioned in the said conditions; and if there shall be no such bill or bills, or if the same shall not amount to a sufficient sum, then the said first-mentioned contracting party doth oblige himself, his heirs, executors and administrators to pay and make good the same to Her Majesty, in such other manner as the said Commissioners for the time being shall require, over and above the sum of 100 *l.* hereinafter mentioned as stipulated or ascertained damages for the breach of this contract, or any part thereof.

And it is also agreed that, in case of any breach of this contract on the part of the said first-mentioned contracting party, it shall be lawful

lawful for the said Commissioners, by writing under their hands, or under the hand of their Secretary, to determine this contract, without any previous notice to the said first-mentioned contracting party, nor shall he be entitled to any compensation in consequence of such determination.

And the said first-mentioned contracting party doth further covenant, that with the first and last delivery of articles on this contract, he shall and will produce and leave at the office aforesaid, a written declaration, signed by himself, that he hath not then, directly or indirectly, given or caused or allowed to be given, or promised to give, nor will afterwards give, nor cause nor allow to be given, to any officer, clerk or other person whomsoever concerned in the receipt of the aforesaid articles, or employed under the said Commissioners or otherwise in Her Majesty's service, or to any person or persons on the behalf, or for the benefit of any such officer, clerk or other person, any money or other thing as a gratuity, fee or reward, for any matter in or relating to this contract, or to the supplies under the same.

And the said first-mentioned contracting party doth for himself, his heirs, executors and administrators, also covenant contract, and agree to and with the said Commissioners, that he, the said first-mentioned contracting party, shall not and will not at any time or times during the continuance of this contract, transfer or assign the same or any part, share, or interest of, in, or to this contract, or cause or procure this contract, or any part, share, or interest of, in, or to the same, to be transferred or assigned to any person or persons whomsoever, without the authority and approbation of the Commissioners for executing the office of Lord High Admiral of the United Kingdom for the time being, which authority and approbation shall be of no avail unless the same, together with the assignment of the part, share or interest (which assignment it shall and may be lawful for them, with such authority and approbation as aforesaid, to make and execute) be endorsed hereon or annexed hereto, and regularly signed in the presence of a credible witness by two of the said Commissioners, and by him the said first-mentioned contracting party, and by the person or persons to whom this contract, or any part, share or interest of, in, or to the same, shall or may have been so transferred or assigned.

And the said first-mentioned contracting party doth hereby further covenant and engage that no Member of the House of Commons hath been or shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom.

And for the due and faithful performance of all and singular the covenants, conditions, provisoes, clauses, articles and agreements hereinbefore contained, which, on the part and behalf of the said first-mentioned contracting party, are or ought to be observed, performed, fulfilled or kept, the said first-mentioned contracting party doth hereby bind himself, his heirs, executors and administrators, unto our sovereign Lady the Queen, in the sum of 100 *l.* of lawful British money, to be paid to our said Lady the Queen, her heirs and successors, by way of stipulated or ascertained damages, agreed upon between the said Commissioners and the said first-mentioned contracting party, in case of the failure of the said first-mentioned con-

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tracting party in the due execution of this contract, or any part thereof, and in addition to the surplus cost, charges, and expenses which may be incurred by Her Majesty in the purchasing or procuring of any quantity of articles which the said first-mentioned contracting party shall fail to deliver as above-mentioned.

In witness whereof the said parties to these presents have hereunto respectively set their hands and seals, the day and year first above written.

Jn°. Gillon. (L.S.)
A. Milne. (L.S.)
W. Cowper. (L.S.)

Signed, sealed, and delivered, by the said John Gillon, being first duly stamped, in the presence of

E. W. Pitt, Lieut. R.N.,
Resident Agent for Transports at Leith.

Signed, sealed, and delivered by the said Commissioners, in the presence of

Jn°. James.

CONDITIONS mentioned and referred to in the Contract hereunto annexed.

THE medical comforts are to be delivered within 12 months from the day of the date hereof, in four equal deliveries, one at the end of every three months, and are to be of the best quality; and, as far as practicable, the meat to be in whole pieces, and no canister to contain any bone, offal-meat, intestines, vegetables, or any other meat or substances whatever not permitted by the contract, and all the articles to be good and fit for the service, and such as the proper receiving officers shall approve of, otherwise they shall be at liberty to reject the same.

No more gravy to be put into any canister of meat than is absolutely necessary for the preservation of the contents, and all the gravy that may be supplied is to be of a strong and pure quality.

The medical comforts to be delivered in canisters of the following sizes:

Soup and bouilli -	In canisters, each containing a pound - - - -	when opened.
Boiled mutton -		
Mutton broth, in canisters, each containing a pint -		
Concentrated gravy	in canisters, each containing a quarter of a pint - -	

Note.—The pound weight is to contain 16 ounces.

All the canisters to be made of tin plates of the best quality, and of a substance sufficiently strong for securing the preservation of their contents during the whole period of warranty of five years and to be well and sufficiently painted on the outside, and to have a metal plate affixed to them, or to have stamped on them the initials of

of the contractor, the description and weight of the contents, and the date of the year when filled.

The contractor is to give timely notice to the Commissioners in writing of the periods when and where he intends to commence preserving the articles to be supplied under the contract, in order that, if they think it necessary they may send an inspector to his factory to ascertain that the process is conducted in every respect in accordance with its conditions.

The officers of Her Majesty's victualling yard, at Deptford, are to have the power to open as many canisters, when delivered, as they may think proper, for the purpose of seeing that the contents are agreeable to the terms of the contract, and the contractor is forthwith to remove such canisters, with their contents, although of an approved quality, and to replace the same with other similar cases and contents free of all charge.

A mulct equal to the value of the canister and its contents will be inflicted on the contractor for every canister found on delivery, or at any time within five years from the date of the supply, to be deficient in weight, or to contain any bone, offal-meat, intestines, vegetables, or other meats or substances already prohibited, or any undue quantity of gravy, or gravy deficient in strength or purity, or whose contents shall have become putrid, or shall be deemed on survey unfit for consumption, either from collapse or bursting of the canister, or from any other cause whatsoever; and the contractor shall also pay back all such sum or sums of money as he may have been paid for the same, and the amount of all such mulcts and repayments, to be either deducted from time to time from any bill or bills payable to him, or to become otherwise payable to and recoverable by Her Majesty.

In case of any breach of the contract, the Commissioners to have power to put an immediate termination to it without the contractor being entitled to any compensation, and also to have the power to purchase and charge the contractor with all extra expenses, in case he fails in making the prescribed deliveries and replacing rejections at the said yard.

(signed) *John Gillon.*

KNOW ALL MEN BY THESE PRESENTS, That we *John Gillon*, merchant, and *John Murdoch*, gentleman, both of Leith, in that part of Great Britain called Scotland, are jointly and severally held and firmly bound unto our sovereign Lady Victoria, by the grace of God, Queen of the United Kingdom of Great Britain and Ireland, in 100 *l.* of good and lawful money of Great Britain, to be paid to our said sovereign Lady the Queen, Her heirs or successors, to which payment well and truly to be made, we bind ourselves and each of us for the whole and our several and respective heirs, executors and administrators, and each and every of them firmly by these presents. Sealed with our seals. Dated this 26th day of April in the year of our Lord 1850.

The condition of the above obligation is such, that if the above bounden

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bounden John Gillon, his executors or administrators, do and shall well and truly observe, perform, fulfil and keep all and singular the covenants, promises, articles, clauses, agreements, matters and things mentioned and contained in a certain deed under seal bearing even date herewith, purporting to be a contract made between the above-bounden John Gillon, of the one part, and the Commissioners for executing the office of Lord High Admiral of the United Kingdom of Great Britain and Ireland (for and on behalf of Her Majesty), of the other part, which on the part and behalf of the above-bounden John Gillon, his executors or administrators, are and ought to be observed, performed, fulfilled and kept according to the true sense, intent, and meaning of the said instrument or contract, that then the above obligation shall be void and of no effect, or otherwise shall be and remain in full force and virtue.

(signed) *John Gillon* (L.S.)
John Murdoch (L.S.)

Signed sealed and delivered (being first duly stamped) in the presence of
E. W. Pitt, Lieut., R. N.
Resident Agent for Transports at Leith.

Transport-office, Leith, 13 May 1850.

I HEREBY certify that I have every reason to believe the surety to the accompanying bond is sufficiently good.

(signed) *E. W. Pitt.*

COPY of CONTRACT with *H. Powell*, and *F. Powell*, Esqrs., dated 16 May 1850.

PRESERVED MEAT.

CONTRACTED and agreed upon this 16th day of May, in the year of our Lord 1850, by and between Henry Powell and Frederick Powell, of Fenchurch-street, in the City of London, wholesale oilmen and co-partners trading under the firm of "Henry Powell & Son," of the one part, and the Commissioners for executing the office of Lord High Admiral of the United Kingdom of Great Britain and Ireland (for and on the behalf of Her Majesty, Her heirs and successors), of the other part, as follows: that is to say, the first-mentioned contracting parties do hereby for themselves, their heirs, executors and administrators, covenant, contract and agree to and with the said Commissioners to supply and deliver into store, free of all charge and risk to Her Majesty, into Her Majesty's Victualling Yards at Deptford, Gosport, and Plymouth, strictly according to the conditions hereunto annexed, from 22,000 lbs. to 24,000 lbs. in the aggregate of preserved boiled beef.

And it is hereby also covenanted and agreed upon by and between the

the said parties hereto, that the several clauses, articles, powers, provisoes, matters and things mentioned and contained in the said conditions hereunto annexed, and not herein or hereby altered, shall be as fully and effectually binding on the said parties respectively as if the same had been particularly repeated and expressed in the body of this present contract.

And it is agreed that upon the said first-mentioned contracting parties producing to the said Commissioners, at their office in Somerset-place, London, a certificate or certificates, signed by the proper receiving officers of the said Commissioners at Deptford, Gosport and Plymouth aforesaid, of the right and true delivery of the beef hereby contracted for, the said first-mentioned contracting parties shall be paid for the beef so delivered, including the value of the canisters, at the rate of 5 $\frac{49}{100}$ *d.* per lb., by bills to be drawn upon Her Majesty's Paymaster-general, payable at sight.

And it is hereby provided, that the said first-mentioned contracting parties shall, upon the presentation of the vouchers required for the purpose of obtaining payment for the beef delivered under this contract, transmit (under sealed cover, addressed to the Accountant-general of the Navy) a statement or abstract, in the form of a bill of parcels, of the true and correct quantity of beef so delivered, and of the sum payable for the same, calculated at the price specified in this contract.

And the said first-mentioned contracting parties do covenant, engage and warrant that all the beef which shall be supplied and delivered under this contract, shall keep, remain and continue perfectly sound, sweet and good, and fit for use for the full period of five years, to be computed from the respective dates of the said certificates of its delivery into Her Majesty's stores. And it is provided and agreed, that in case any part thereof shall upon any survey or surveys of the same, to be made at any one or more time or times within the said period, either in Her Majesty's stores, or on board any of Her Majesty's ships or vessels, or any transport vessel in Her Majesty's service, be found by the proper officers making such survey or surveys, or by the major part of them, to be by reason of unsoundness or defect in quality or condition not fit for the use of Her Majesty's service, which survey or surveys shall and may be made by the proper officer or officers, agent or agents of the said Commissioners, or by any other officer or officers in Her Majesty's service, whether naval or otherwise, then and in every such case it shall and may be lawful for the said officers to condemn the same, which condemnation the said Commissioners, producing and showing to the said first-mentioned contracting parties, if required, the reports, vouchers, or other documents or written evidence of such survey and condemnation, shall be conclusive on the subject.

And it is expressly declared and agreed by and on the part of the said first-mentioned contracting parties, that in the event of their failing to deliver the aforesaid quantity of beef within the time, and in the proportions and of the quality and goodness mentioned in the said conditions, or if any part of such beef shall, upon any such survey as aforesaid, be found unsound and be condemned as aforesaid, then and in either of the said cases, and as often as the same shall happen,

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happen, it shall and may be lawful for the Commissioners for the time being to cause to be purchased, in any manner they may think proper, any quantity or quantities of beef as shall be equal to that or those which the said first-mentioned contracting parties shall fail to deliver with respect to time or quality, or which shall be condemned as aforesaid; and the said first-mentioned contracting parties do agree, that it shall and may be lawful for the said Commissioners, or the Commissioners for the time being, to stop and abate from any bill or bills then made out and undelivered, or to be made out to the said first-mentioned contracting parties, on this or any other contract, not only the full amount of the value of the said beef, calculated at the price stipulated in this contract, in case the said first-mentioned contracting parties shall have received payment for the same, but likewise the full amount of the surplus cost, if any, of the beef so purchased beyond the said stipulated price, together with all costs, charges, damages and expenses attending the purchasing or procuring the same; and if there shall be so such bill or bills, or if the same shall not amount to a sufficient sum, then the said first-mentioned contracting parties do oblige themselves, their heirs, executors and administrators, to pay and make good the same to Her Majesty, in such other manner as the said Commissioners for the time being shall require, over and above the sum of 200 *l.* hereinafter mentioned, as stipulated or ascertained damages for the breach of this contract, or any part thereof.

And it is also agreed, that in case of any breach of this contract on the part of the said first mentioned contracting parties, it shall be lawful for the said Commissioners, by writing under their hands, or under the hand of their secretary, to determine this contract without any previous notice to the said first-mentioned contracting parties, nor shall they be entitled to any compensation in consequence of such determination.

And the said first-mentioned contracting parties do further covenant, that with the first and last delivery of beef on this contract, they shall and will produce, and leave at the office aforesaid, a written declaration, signed by themselves, that they have not then directly or indirectly given or caused, or allowed to be given, or promised to give, nor will afterwards give nor cause, nor allow to be given to any officer, clerk, or other person whomsoever concerned in the receipt of the aforesaid beef, or employed under the said Commissioners or otherwise in Her Majesty's service, or to any person or persons on the behalf or for the benefit of any such officer, clerk or other person, any money or other thing as a gratuity, fee or reward for any matter in or relating to this contract, or to the supplies under the same.

And the said first-mentioned contracting parties do for themselves, their heirs, executors and administrators, also covenant, contract and agree to and with the said Commissioners, that they the said first-mentioned contracting parties, shall not and will not at any time or times during the continuance of this contract, transfer or assign the same, or any part, share or interest of, in or to this contract, or cause or procure this contract, or any part, share or interest of, in or to the same, to be transferred or assigned to any person or persons whomsoever

soever, without the authority and approbation of the Commissioners for executing the office of Lord High Admiral of the United Kingdom for the time being, which authority and approbation shall be of no avail unless the same, together with the assignment of the part, share or interest (which assignment it shall and may be lawful for them, with such authority and approbation as aforesaid, to make and execute) be endorsed hereon, or annexed hereto, and regularly signed in the presence of a credible witness by two of the said Commissioners, and by them the said first-mentioned contracting parties, and by the person or persons to whom this contract, or any part, share or interest of, in or to the same, shall or may have been so transferred or assigned.

And the said first-mentioned contracting parties do hereby further covenant and engage that no Member of the House of Commons hath been or shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom.

And for the due and faithful performance of all and singular the covenants, conditions, provisoes, clauses, articles and agreements hereinbefore contained, which on the part and behalf of the said first-mentioned contracting parties are or ought to be observed, performed, fulfilled or kept, the said first-mentioned contracting parties do hereby bind themselves, their heirs, executors and administrators unto our Sovereign Lady the Queen, in the sum of 200 *l.* of lawful British money, to be paid to our said Lady the Queen, her heirs and successors, by way of stipulated or ascertained damages agreed upon between the said Commissioners and the said first-mentioned contracting parties, in case of the failure of the said first-mentioned contracting parties in the due execution of this contract, or any part thereof, and in addition to the surplus, cost, charges and expenses which may be incurred by Her Majesty in the purchasing or procuring of any quantity of beef which the said first-mentioned contracting parties shall fail to deliver as above mentioned.

In witness whereof, the said parties to these presents have hereunto respectively set their hands and seals the day and year first above written.

Henry Powell. (L. S.)
Fred. Powell. (L. S.)
Alex^r Milne. (L. S.)
W. Cowper. (L. S.)

Signed, sealed, and delivered, being first duly stamped in the presence of

Jn^o. James.

CONDITIONS mentioned and referred to in the Contract hereunto annexed.

THE whole quantity of preserved beef is to be delivered within 12 months from the 16th day of May 1850, free of all charge for carriage and other expenses, into store at Deptford, Gosport and Plymouth

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Plymouth victualling yards, and in such quantities at each yard as the Lords Commissioners of the Admiralty shall from time to time direct, and one-fourth part of the whole quantity is to be so delivered at the end of every two or three months, or at such other periods as may best suit the convenience of Her Majesty's service.

All the preserved beef to be of the best quality, and, as far as practicable, the meat to be in whole pieces, and no canister to contain any bone, offal-meat, intestines, vegetables, or any other meat or substances whatever not permitted by the contract, and all the beef to be good and fit for the service, and such as the proper receiving officers shall approve of, otherwise they shall be at liberty to reject the same.

No more gravy to be put into any canister of beef than is absolutely necessary for the preservation of the contents, and all the gravy that may be supplied is to be of a strong and pure quality.

From 12,000 pounds to 13,000 pounds of the preserved beef to be delivered in canisters, each containing nine pounds when opened, and from 10,000 to 11,000 pounds in canisters, each containing 12 pounds when opened.

Note.—The pound weight is to contain 16 ounces.

All the canisters to be made of tin plates of the best quality, and of a substance sufficiently strong for securing the preservation of their contents during the whole period of warranty of five years, and to be well and sufficiently painted on the outside, and to have a metal place affixed to them, or to have stamped on them the initials of the contractor, the description and weight of the contents, and the date of the year when filled.

The contractor is to give timely notice to the Commissioners in writing of the periods when and where he intends to commence preserving the beef to be supplied under the contract, in order that if they think it necessary they may send an inspector to his factory to ascertain that the process is conducted in every respect in accordance with its conditions.

The officers at the respective yards are to have the power to open as many canisters when delivered as they may think proper, for the purpose of seeing that the contents are agreeable to the terms of the contract, and the contractor is forthwith to remove such canisters with their contents, although of an approved quality, and to replace the same with other similar cases and contents, free of all charge for the canisters and their contents so returned.

A mulct equal to the value of the canister and its contents will be inflicted on the contractor for every canister found on delivery, or at any time within five years from the date of the supply, to be deficient in weight or to contain any bone, offal-meat, intestines, vegetables, or other meats or substances already prohibited, or any undue quantity of gravy, or gravy deficient in strength or purity, or whose contents shall have become putrid, or shall be deemed on survey unfit for consumption either from collapse or bursting of the canister, or from any other cause whatsoever; and the contractor shall also pay back all such sum or sums of money as he may have been paid for the same, and the amount of all such mulcts and repayments

repayments to be either deducted from time to time from any bill or bills payable to him, or to become otherwise payable to and recoverable by Her Majesty.

In case of any breach of the contract the Commissioners to have the power to put an immediate termination to it without the contractor being entitled to any compensation, and also to have the power to purchase and charge the contractor with all extra expenses in case he fails in making the prescribed deliveries, and replacing rejections at the said yards.

Henry Powell.
Fred^k. Powell.

KNOW ALL MEN BY THESE PRESENTS, that we, *Henry Powell* and *Frederick Powell*, of Fenchurch-street, in the city of London, wholesale oilmen and copartners, trading under the firm of "Henry Powell & Son," and James Dawson, of Billiter-square, London, gentleman, are jointly and severally held and firmly bound unto our sovereign Lady Victoria, by the grace of God Queen of the United Kingdom of Great Britain and Ireland, in 200 *l.* of good and lawful money of Great Britain, to be paid to our said sovereign Lady the Queen, her heirs or successors, to which payment, well and truly to be made, we bind ourselves and each of us for the whole, and our several and respective heirs, executors, and administrators, and each and every of them firmly by these presents. Sealed with our seals. Dated this 16th day of May in the year of our Lord 1850.

The condition of the above obligation is such that if the above-bounden Henry Powell and Frederick Powell, their executors or administrators, do and shall well and truly observe, perform, fulfil, and keep all and singular the covenants, promises, articles, clauses, agreements, matters and things mentioned and contained in a certain deed under seal, bearing even date herewith, purporting to be a contract made between the above-bounden Henry Powell and Frederick Powell, of the one part, and the Commissioners for executing the office of Lord High Admiral of the United Kingdom of Great Britain and Ireland (for and on behalf of Her Majesty), of the other part, which on the part and behalf of the above-bounden Henry Powell and Frederick Powell, their executors or administrators, are and ought to be observed, performed, fulfilled, and kept according to the true sense, intent, and meaning of the said instrument or contract, that then the above obligation shall be void and of no effect, or otherwise shall be and remain in full force and virtue.

Henry Powell. (L. S.)
Fred^k. Powell. (L. S.)
James Dawson. (L. S.)

Signed, sealed, and delivered (being first duly stamped) in the presence of
Jn^o. James.

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COPY of CONTRACT with *S. Goldner*, Esq., dated 29 January 1851.

PRESERVED MEAT.

CONTRACTED and agreed upon, this 29th day of January, in the year of our Lord, 1851, by and between Stephen Goldner, of Houndsditch, in the city of London, preserved provision manufacturer, of the one part, and the Commissioners for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, for and on the behalf of Her Majesty, her heirs and successors, of the other part, as follows; that is to say, the said first-mentioned contracting party doth hereby, for himself, his heirs, executors, and administrators, covenant, contract, and agree to and with the said Commissioners, to supply and deliver into store, free of all charge and risk to Her Majesty, into Her Majesty's victualling yards at Deptford, Gosport, and Plymouth, strictly according to the conditions hereunto annexed, 800,000 lbs. in the aggregate of preserved boiled beef.

And it is hereby also covenanted and agreed upon, by and between the said parties hereto, that the several clauses, articles, powers, provisoes, matters, and things mentioned and contained in the said conditions hereunto annexed, and not herein or hereby altered, shall be as fully and effectually binding on the said parties respectively as if the same had been particularly repeated and expressed in the body of this present contract.

And it is agreed that upon the said first-mentioned contracting party producing to the said Commissioners, at their office in Somerset-place, London, a certificate or certificates, signed by the proper receiving-officers of the said Commissioners at Deptford, Gosport, and Plymouth aforesaid, of the right and true delivery of the beef hereby contracted for, the said first-mentioned contracting party shall be paid for the beef so delivered at the following rates, namely, for the proportion thereof which shall be delivered in canisters, each containing six pounds, at the rate of $5\frac{1}{8}$ *d.* per pound; for the proportion thereof which shall be delivered in canisters, each containing nine pounds, at the rate of 5*d.* per pound; and for the proportion thereof which shall be delivered in canisters, each containing 12 pounds, at the rate of $4\frac{3}{4}$ *d.* per pound; which said rates shall include the value of the canisters in every case, by bills to be drawn upon Her Majesty's Paymaster-general, payable at sight.

And it is hereby provided that the said first-mentioned contracting party shall, upon the presentation of the vouchers required for the purpose of obtaining payment for the beef delivered under this contract, transmit (under sealed cover, addressed to the Accountant-general of the Navy) a statement or abstract, in the form of a bill of parcels, of the true and correct quantity of beef so delivered, and of the sum payable for the same, calculated at the prices specified in this contract.

And the said first-mentioned contracting party doth covenant, engage, and warrant that all the beef which shall be supplied and delivered under this contract, shall keep, remain, and continue perfectly

fectly sound, sweet, and good, and fit for use, for the full period of five years, to be computed from the respective dates of the said certificates of its delivery into Her Majesty's stores. And it is provided and agreed that in case any part thereof shall, upon any survey or surveys of the same to be made at any one or more time or times within the said period, either in Her Majesty's stores, or on board any of Her Majesty's ships or vessels, or any transport vessel in Her Majesty's service, be found by the proper officers making such survey or surveys, or by the major part of them, to be, by reason of unsoundness, or defect in quality or condition, not fit for the use of Her Majesty's service, which survey or surveys shall and may be made by the proper officer or officer's agent or agents of the said Commissioners, or by any other officer or officers in Her Majesty's service, whether naval or otherwise, then and in every such case it shall and may be lawful for the said officers to condemn the same, which condemnation the said Commissioners producing and showing to the said first-mentioned contracting party, if required, the reports, vouchers, or other documents or written evidence of such survey and condemnation shall be conclusive on the subject.

And it is expressly declared and agreed, by and on the part of the said first-mentioned contracting party, that in the event of his failing to deliver the aforesaid quantity of beef within the time, and in the proportions, and of the quality and goodness mentioned in the said conditions, or if any part of such beef shall, upon any such survey as aforesaid, be found unsound, and be condemned as aforesaid, then and in either of the said cases, and as often as the same shall happen, it shall and may be lawful for the Commissioners for the time being to cause to be purchased in any manner they may think proper, any quantity or quantities of beef as shall be equal to that or those which the said first-mentioned contracting party shall fail to deliver with respect to time or quality, or which shall be condemned as aforesaid; and the said first-mentioned contracting party doth agree that it shall and may be lawful for the said Commissioners, or the Commissioners for the time being, to stop and abate from any bill or bills then made out and undelivered, or to be made out to the said first-mentioned contracting party, on this or any other contract, not only the full amount of the value of the said beef, calculated at the price stipulated in this contract, in case the said first-mentioned contracting party shall have received payment for the same, but likewise the full amount of the surplus cost, if any, of the beef so purchased, beyond the said stipulated price, together with all costs, charges, damages, and expenses attending the purchasing or procuring the same; and if there shall be no such bill or bills, or if the same shall not amount to a sufficient sum, then the said first-mentioned contracting party doth oblige himself, his heirs, executors, and administrators, to pay and make good the same to Her Majesty, in such other manner as the said Commissioners for the time being shall require, over and above the sum of 4,000 *l.* hereinafter mentioned as stipulated or ascertained damages for the breach of this contract, or any part thereof.

And it is also agreed that in case of any breach of this contract on the part of the said first-mentioned contracting party, it shall be lawful for the said Commissioners, by writing under their hands, or under

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under the hand of their secretary, to determine this contract without any previous notice to the said first-mentioned contracting party, nor shall he be entitled to any compensation in consequence of such determination.

And the said first-mentioned contracting party doth further covenant, that with the first and last delivery of beef on this contract, he shall and will produce and leave at the office aforesaid, a written declaration, signed by himself, that he hath not then, directly or indirectly, given, or caused or allowed to be given, or promised to give, nor will afterwards give nor cause nor allow to be given, to any officer, clerk, or other person whomsoever, concerned in the receipt of the aforesaid beef, or employed under the said Commissioners, or otherwise in Her Majesty's service, or to any person or persons on the behalf or for the benefit of any such officer, clerk, or other person, any money or other thing, as a gratuity, fee, or reward for any matter in or relating to this contract, or to the supplies under the same.

And the said first-mentioned contracting party doth for himself, his heirs, executors, and administrators, also covenant, contract, and agree to and with the said Commissioners, that he, the said first-mentioned contracting party, shall not and will not at any time or times during the continuance of this contract, transfer or assign the same, or any part, share, or interest of, in, or to this contract, or cause or procure this contract, or any part, share or interest, of, in, or to the same, to be transferred or assigned to any person or persons whomsoever, without the authority and approbation of the Commissioners for executing the office of Lord High Admiral of the United Kingdom for the time being, which authority and approbation shall be of no avail unless the same, together with the assignment of the part, share, or interest (which assignment it shall and may be lawful for them, with such authority and approbation as aforesaid, to make and execute) be indorsed hereon, or annexed hereto, and regularly signed, in the presence of a credible witness, by two of the said Commissioners, and by him the said first-mentioned contracting party, and by the person or persons to whom this contract, or any part, share, or interest, of, in, or to the same, shall or may have been so transferred or assigned.

And the said first mentioned contracting party doth hereby further covenant and engage that no Member of the House of Commons hath been or shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom.

And for the due and faithful performance of all and singular the covenants, conditions, provisoes, clauses, articles and agreements hereinbefore contained, which on the part and behalf of the said first-mentioned contracting party are or ought to be observed, performed, fulfilled or kept, the said first-mentioned contracting party doth hereby bind himself, his heirs, executors and administrators, unto our Sovereign Lady the Queen in the sum of 4000 *l.* of lawful British money, to be paid to our said Lady the Queen, Her heirs and successors, by way of stipulated or ascertained damages agreed upon between the said Commissioners and the said first-mentioned contracting party, in case of the failure of the said first-mentioned contracting party in the due execution of this contract or any part thereof,

thereof, and in addition to the surplus cost, charges and expenses which may be incurred by Her Majesty in the purchasing or procuring of any quantity of beef which the said first-mentioned contracting party shall fail to deliver as above-mentioned.

In witness whereof the said parties to these presents have hereunto respectively set their hands and seals the day and year first above written.

S. Goldner. (L. S.)
Alex^r Milne. (L. S.)
W. Cowper. (L. S.)

Signed, sealed and delivered (being first duly stamped) in the presence of
Jn^o James.

CONDITIONS mentioned and referred to in the Contract hereunto annexed.

THE whole quantity of preserved beef is to be delivered by the 31st day of December 1851 (free of all charge for carriage and other expenses), into store at Deptford, Gosport and Plymouth Victualling Yards, and in such quantities at each yard as the Lords Commissioners of the Admiralty shall from time to time direct, and in the following proportions, namely, 350,000 lbs. thereof by the 30th day of May now next ensuing; 150,000 lbs. more thereof by the 30th day of August now next ensuing, and the remaining 300,000 lbs. thereof by the 31st day of December now next ensuing the day of the date hereof.

All the beef to be of the best quality, and as far as practicable the meat to be in whole pieces, and no canister to contain any bone, offal-meat, intestines, vegetables, or any other meat or substances whatever not permitted by the contract, and all the beef to be good and fit for the service, and such as the proper receiving officers shall approve of, otherwise they shall be at liberty to reject the same.

No more gravy to be put into any canister than is absolutely necessary for the preservation of the contents, and all the gravy that may be supplied is to be of a strong and pure quality.

One-third of the beef to be delivered in canisters, each containing 6 lbs. when opened; another one-third in canisters, each containing 9 lbs. when opened, and the remainder in canisters, each containing 12 lbs. when opened.

Note.—The pound weight is to contain 16 ounces.

All the canisters to be made of tin plates of the best quality, and of a substance sufficiently strong for securing the preservation of their contents during the whole period of warranty of five years, and to be well and sufficiently painted on the outside, and to have a metal plate affixed to them, or to have stamped on them the initials of the contractor, the description and weight of the contents, and the date of the year when filled.

The contractor is to give timely notice to the said Commissioners in writing of the periods when and where he intends to commence preserving

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preserving the beef to be supplied under the contract, in order that, if they think it necessary, they may send an inspector to his factory to ascertain that the process is conducted in every respect in accordance with its conditions.

The officers at the respective yards are to have the power to open as many canisters when delivered as they may think proper, for the purpose of seeing that the contents are agreeable to the terms of the contract, and the contractor is forthwith to remove such canisters, with their contents, although of an approved quality, and to replace the same with other similar cases and contents, free of all charge for the canisters and contents so returned.

A mulct equal to the value of the canister and its contents will be inflicted on the contractor for every canister found on delivery, or at any time within five years from the date of the supply, to be deficient in weight, or to contain any bone, offal-meat, intestines, vegetables, or other meats or substances already prohibited, or any undue quantity of gravy, or gravy deficient in strength or purity, or whose contents shall have become putrid, or shall be deemed on survey unfit for consumption, either from collapse or bursting of the canister, or from any other cause whatsoever, and the contractor shall also pay back all such sum or sums of money as he may have been paid for the same, and the amount of all such mulcts and repayments to be either deducted from time to time from any bill or bills payable to him, or to become otherwise payable to and recoverable by Her Majesty.

In case of any breach of the contract, the said Commissioners to have power to put an immediate termination to it, without the contractor being entitled to any compensation, and also to have the power to purchase and charge the contractor with all extra expenses in case he fails in making the prescribed deliveries, and replacing rejections at the said yards.

(signed) *S. Goldner.*

KNOW ALL MEN BY THESE PRESENTS, that we, *Stephen Goldner* of Houndsditch, in the city of London, preserved provision manufacturer, *William Quilter*, of Coleman-street, London, accountant, and *William Henry Ritchie*, of Holland-place, Brixton, in the county of Surrey, patent agent, are jointly and severally held and firmly bound unto our sovereign Lady, Victoria, by the grace of God Queen of the United Kingdom of Great Britain and Ireland, in 4,000 *l.* of good and lawful money of Great Britain, to be paid to our said sovereign Lady the Queen, Her heirs or successors, to which payment, well and truly to be made, we bind ourselves and each of us for the whole and our several and respective heirs, executors and administrators, and each and every of them firmly by these presents. Sealed with our seals. Dated this 29th day of January, in the year of our Lord 1851.

The condition of the above obligation is such, that if the above-bounden Stephen Goldner, his executors or administrators, do and shall

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shall well and truly observe, perform, fulfil, and keep all and singular the covenants, promises, articles, clauses, agreements, matters and things mentioned and contained in a certain deed under seal, bearing even date herewith, purporting to be a contract made between the above-bounden Stephen Goldner of the one part, and the Commissioners for executing the office of Lord High Admiral of the United Kingdom of Great Britain and Ireland (for and on behalf of Her Majesty) of the other part, which on the part and behalf of the above-bounden Stephen Goldner, his executors or administrators, are and ought to be observed, performed, fulfilled and kept according to the true sense, intent and meaning of the said instrument or contract, that then the above obligation shall be void and of no effect, or otherwise shall be and remain in full force and virtue.

S. Goldner. (L.S.)
W. Quilter. (L.S.)
Wm Hy Ritchie. (L.S.)

Signed, sealed and delivered (being first duly stamped) in the presence of

Jno. James.

REJECTED TENDERS.

FORM of the Tender for Supplying the undermentioned Quantities of Preserved Meat and Medical Comforts, for the Service of Her Majesty's Navy.

Sir, 25 April 1850.

I OFFER to supply the articles undermentioned at the prices following, and according to the conditions hereinafter contained.

PRESERVED MEAT, viz.:—

1,000,000 lbs. Boiled beef - - - - at 6½ *d.* per lb.

MEDICAL COMFORTS, viz.:—

1,000 lbs. Soup and bouilli - - at 8 *d.* per lb.
1,000 lbs. Boiled mutton - - - - at 8½ *d.* per lb.
1,000 pints Mutton broth - - - - at 5 *d.* per pint.
1,000 ¼ pints Concentrated gravy - - at 4½ *d.* per ¼ pint.

The prices to include the value of the canisters in every case.

I am, Sir,
Your very humble servant,
J. H. Gamble,
33, Royal Exchange, London.

Signature _____

Address _____

Manufactory, 4, 5 and 6 Morisson's Quay, Cork.

Secretary of the Admiralty.

CONDITIONS

App. No. 1.

Conditions of the Contract.

The Lords Commissioners of the Admiralty reserve to themselves the power of giving the whole contract, on the day of treaty, to one firm, or of dividing it equally between two or more firms.

The whole quantity of preserved beef is to be delivered within 12 months from the day of treaty (free of all charge for carriage and other expenses) into store at Deptford, Portsmouth and Plymouth Victualling Yards, and in such quantities at each yard as the Commissioners shall from time to time direct; and one-fourth part of the whole quantity is to be so delivered at the end of every two or three months, or at such other periods as may best suit the convenience of Her Majesty's service.

The medical comforts are all to be delivered at Deptford within 12 months, and in four equal deliveries, one at the end of every three months.

All the preserved meat and medical comforts to be of the best quality, and, as far as practicable, the meat to be in whole pieces; and no canister to contain any bone, offal-meat, intestines, vegetables, or any other meat or substances whatever not permitted by the contract, and all the articles to be good and fit for the service, and such as the proper receiving officers shall approve of, otherwise they shall be at liberty to reject the same.

No more gravy to be put into any canister of meat than is absolutely necessary for the preservation of the contents, and all the gravy that may be supplied is to be of a strong and pure quality.

One-third of the preserved beef to be delivered in canisters, each containing 6 lbs. when opened; another one-third in canisters, each containing 9 lbs. when opened, and the remainder in canisters, each containing 12 lbs. when opened; and the medical comforts to be delivered in canisters of the following sizes:

Soup and bouilli - Boiled mutton -	In canisters, each containing 1 lb. - - - -	when opened.
Mutton broth, in canisters, each containing 1 pint -		
Concentrated gravy	In canisters, each containing a ¼ pint - - - -	

Note.—The pound weight is to contain 16 ounces.

All the canisters to be made of tin plates of the best quality, and of a substance sufficiently strong for securing the preservation of their contents during the whole period of warranty of five years, and to be well and sufficiently painted on the outside, and to have a metal plate affixed to them, or to have stamped on them the initials of the contractor, the description and weight of the contents, and the date of the year when filled.

The contractor is to give timely notice to the Commissioners, in writing, of the periods when and where he intends to commence preserving the articles to be supplied under the contract, in order that, if they think it necessary, they may send an inspector to his factory to ascertain that the process is conducted in every respect in accordance with its conditions.

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The officers at the respective yards are to have the power to open as many canisters when delivered, as they may think proper, for the purpose of seeing that the contents are agreeable to the terms of the contract, and the contractor is forthwith to remove such canisters, with their contents, although of an approved quality, and to replace the same with other similar cases and contents, free of all charge.

A mulct, equal to the value of the canister and its contents, will be inflicted on the contractor for every canister found on delivery, or at any time within five years from the date of the supply, to be deficient in weight, or to contain any bone, offal-meat, intestines, vegetables, or other meats or substances already prohibited, or any undue quantity of gravy, or gravy deficient in strength or purity, or whose contents shall have become putrid, or shall be deemed, on survey, unfit for consumption either from collapse or bursting of the canister, or from any other cause whatsoever; and the contractor shall also pay back all such sum or sums of money as he may have been paid for the same, and the amount of all such mulcts and repayments to be either deducted from time to time from any bill or bills payable to him, or to become otherwise payable to and recoverable by Her Majesty.

In case of any breach of the contract the Commissioners to have power to put an immediate termination to it without the contractor being entitled to any compensation, and also to have the power to purchase and charge the contractor with all extra expenses, in case he fails in making the prescribed deliveries and replacing rejections at the said yards.

Payments will from time to time be made for the articles by bills at sight on Her Majesty's Paymaster-general.

The contract not be transferred, and no Member of the House of Commons to have any share therein.

Every tender must be accompanied by a letter signed by two responsible persons offering to become bound with the person tendering, in the sum of 6,000 *l.*, for the due performance of the whole contract, or in a due proportion of that sum for a part only, and the letter must contain a reference to some person or persons well acquainted with the sufficiency of the parties so offering to become bound, and persons in partnership with the contractor, or with each other, will not be accepted as sureties.

FORM of the Tender for supplying the undermentioned Quantities of Preserved Meat and Medical Comforts for the Service of Her Majesty's Navy.

Sir, 25 April 1850.

We offer to supply the articles undermentioned at the prices following, and according to the conditions hereinafter contained.

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Preserved Meat, viz.:

200,000 lbs. Boiled beef - - - -	at 7 ½ *d.* per lb.

Medical Comforts, viz.:

1,000 lbs. Soup and bouilli - - - -	at 6 ½ *d.* per lb.
1,000 lbs. Boiled mutton - - - -	at 9 *d.* per lb.
1,000 pints Mutton broth - - - -	at 5 *d.* per pint.
1,000 ¼ pints Concentrated gravy - -	at 5 *d.* per ¼ pint.

The prices to include the value of the canisters in every case.

We are, Sir,
Your very humble servants,
Wm. & Thos. Cooper,
134, Leadenhall-street, London.

Signature _____

Address _____

P. S.—Our manufactory being in London, we can, if allowed to deliver the boiled beef at Deptford, do so at one farthing per pound less than the above price.

W. & T. C.

Secretary of the Admiralty.

Conditions of the Contract.

The Lords Commissioners of the Admiralty reserve to themselves the power of giving the whole contract, on the day of treaty, to one firm, or of dividing it equally between two or more firms.

The whole quantity of preserved beef is to be delivered within 12 months from the day of treaty (free of all charge for carriage and other expenses) into store at Deptford, Portsmouth, and Plymouth victualling yards, and in such quantities at each yard as the Commissioners shall from time to time direct; and one-fourth part of the whole quantity is to be so delivered at the end of every two or three months, or at such other periods as may best suit the convenience of Her Majesty's service.

The medical comforts are all to be delivered at Deptford within 12 months, and in four equal deliveries, one at the end of every three months.

All the preserved meat and medical comforts to be of the best quality, and, as far as practicable, the meat to be in whole pieces; and no canister to contain any bone, offal-meat, intestines, vegetables, or any other meat or substances whatever not permitted by the contract; and all the articles to be good and fit for the service, and such as the proper receiving officers shall approve of, otherwise they shall be at liberty to reject the same.

No more gravy to be put into any canister of meat than is absolutely

lutely necessary for the preservation of the contents, and all the gravy that may be supplied is to be of a strong and pure quality.

One-third of the preserved beef to be delivered in canisters, each containing 6 lbs. when opened; another one-third in canisters, each containing 9 lbs. when opened; and the remainder in canisters, each containing 12 lbs. when opened; and the medical comforts to be delivered in canisters of the following sizes:

Soup and bouilli Boiled mutton	In canisters, each containing 1 lb.	When opened.
Mutton broth	In canisters, each containing 1 pint	
Concentrated gravy,	In canisters, each containing a ½ pint	

Note.—The pound weight is to contain 16 ounces.

All the canisters to be made of tin plates of the best quality, and of a substance sufficiently strong for securing the preservation of their contents during the whole period of warranty of five years, and to be well and sufficiently painted on the outside, and to have a metal plate affixed to them, or to have stamped on them the initials of the contractor, the description and weight of the contents, and the date of the year when filled.

The contractors is to give timely notice to the Commissioners, in writing, of the periods when and where he intends to commence preserving the articles to be supplied under the contract, in order that, if they think it necessary, they may send an inspector to his factory to ascertain that the process is conducted in every respect in accordance with its conditions.

The officers at the respective yards are to have the power to open as many canisters, when delivered, as they may think proper, for the purpose of seeing that the contents are agreeable to the terms of the contract, and the contractor is forthwith to remove such canisters with their contents, although of an approved quality, and to replace the same with other similar cases and contents, free of all charge.

A mulct, equal to the value of the canister and its contents, will be inflicted on the contractor for every canister found on delivery, or at any time within five years from the date of the supply, to be deficient in weight, or to contain any bone, offal-meat, intestines, vegetables, or other meats or substances already prohibited, or any undue quantity of gravy, or gravy deficient in strength or purity, or whose contents shall have become putrid, or shall be deemed, on survey, unfit for consumption, either from collapse or bursting of the canister, or from any other cause whatsoever; and the contractor shall also pay back all such sum or sums of money as he may have been paid for the same, and the amount of all such mulcts and repayments to be either deducted from time to time from any bill or bills payable to him, or to become otherwise payable to and recoverable by Her Majesty.

In case of any breach of the contract the Commissioners to have power to put an immediate termination to it, without the contractor being entitled to any compensation, and also to have the power to purchase and charge the contractor with all extra expenses, in case he fails in making the prescribed deliveries and replacing rejections at the said yards.

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Payments will from time to time be made for the articles by bills at sight on Her Majesty's Paymaster-general.

The contract not to be transferred, and no Member of the House of Commons to have any share therein.

Every tender must be accompanied by a letter signed by two responsible persons, offering to become bound with the person tendering, in the sum of 6,000 *l.* for the due performance of the whole contract, or in a due proportion of that sum for a part only, and the letter must contain a reference to some person or persons well acquainted with the sufficiency of the parties so offering to become bound, and persons in partnership with the contractor or with each other will not be accepted as sureties.

FORM of the Tender for supplying the undermentioned Quantities of Preserved Meat and Medical Comforts for the Service of Her Majesty's Navy.

Sir, 23 April 1850.

I OFFER to supply the articles undermentioned at the prices following, and according to the conditions hereinafter contained.

PRESERVED MEAT, viz.:

The 1,000,000 lbs. Boiled beef - - -	at 5 $\frac{15}{16}$ *d.* per lb.

And MEDICAL COMFORTS, viz.:

1,000 lbs. Soup and bouilli - - - -	at 6 *d.* per lb.
1,000 lbs. Boiled mutton - - - -	at 7 *d.* per lb.
1,000 pints Mutton broth - - - -	at 7 *d.* per pint.
1,000 $\frac{1}{4}$ pints Concentrated gravy - - -	at 6 *d.* per $\frac{1}{4}$ pint.

The prices to include the value of the canisters in every case.

I am, Sir,

Your very humble servant,

Signature, *Augustus Robert McSwiney.*
Address, Cork.

Secretary of the Admiralty.

CONDITIONS of the Contract.

THE Lords Commissioners of the Admiralty reserve to themselves the power of giving the whole contract, on the day of treaty, to one firm or of dividing it equally between two or more firms.

The whole quantity of preserved beef is to be delivered within 12 months from the day of treaty (free of all charge for carriage and other expenses) into store at Deptford, Portsmouth and Plymouth Victualling yards, and in such quantities at each yard as the Commissioners shall from time to time direct; and one-fourth part of the whole quantity

quantity is to be so delivered at the end of every two or three months, or at such other periods as may best suit the convenience of Her Majesty's service.

The medical comforts are all to be delivered at Deptford within 12 months, and in four equal deliveries, one at the end of every three months.

All the preserved meat and medical comforts to be of the best quality, and, as far as practicable, the meat to be in whole pieces; and no canister to contain any bone, offal-meat, intestines, vegetables, or any other meat or substances whatever not permitted by the contract, and all the articles to be good and fit for the service, and such as the proper receiving officers shall approve of, otherwise they shall be at liberty to reject the same.

No more gravy to be put into any canister of meat than is absolutely necessary for the preservation of the contents, and all the gravy that may be supplied is to be of a strong and pure quality.

One-third of the preserved beef to be delivered in canisters, each containing 6 lbs. when opened; another one-third in canisters, each containing 9 lbs. when opened; and the remainder in canisters, each containing 12 lbs. when opened; and the medical comforts to be delivered in canisters of the following sizes:

Soup and bouilli Boiled mutton	In canisters, each containing 1 lb.	When opened.
Mutton broth	In canisters, each containing 1 pint.	
Concentrated gravy	In canisters, each containing a $\frac{1}{4}$ pint.	

Note.—The pound weight is to contain 16 ounces.

All the canisters to be made of tin plates of the best quality, and of a substance sufficiently strong for securing the preservation of their contents during the whole period of warranty of five years, and to be well and sufficiently painted on the outside, and to have a metal plate affixed to them, or to have stamped on them the initials of the contractor, the description and weight of the contents, and the date of the year when filled.

The contractor is to give timely notice to the Commissioners, in writing, of the periods when and where he intends to commence preserving the articles to be supplied under the contract, in order that, if they think it necessary, they may send an inspector to his factory to ascertain that the process is conducted in every respect in accordance with its conditions.

The officers at the respective yards are to have the power to open as many canisters, when delivered, as they may think proper, for the purpose of seeing that the contents are agreeable to the terms of the contract, and the contractor is forthwith to remove such canisters with their contents, although of an approved quality, and to replace the same with other similar cases and contents, free of all charge.

A mulct, equal to the value of the canister and its contents, will be inflicted on the contractor for every canister found on delivery, or at any time within five years from the date of the supply, to be deficient in weight, or to contain any bone, offal-meat, intestines, vegetables, or other meats or substances already prohibited, or any undue quantity of gravy, or gravy deficient in strength or purity, or whose

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whose contents shall have become putrid, or shall be deemed, on survey, unfit for consumption, either from collapse or bursting of the canister, or from any other cause whatsoever; and the contractor shall also pay back all such sum or sums of money as he may have been paid for the same, and the amount of all such mulcts and repayments to be either deducted from time to time from any bill or bills payable to him, or to become otherwise payable to and recoverable by Her Majesty.

In case of any breach of the contract the Commissioners to have power to put an immediate termination to it, without the contractor being entitled to any compensation, and also to have the power to purchase and charge the contractor with all extra expenses, in case he fails in making the prescribed deliveries and replacing rejections at the said yards.

Payments will from time to time be made for the articles by bills at sight on Her Majesty's Paymaster-general.

The contract not to be transferred, and no Member of the House of Commons to have any share therein.

Every tender must be accompanied by a letter signed by two responsible persons offering to become bound with the person tendering in the sum of £. 6,000 for the due performance of the whole contract, or in a due proportion of that sum for a part only, and the letter must contain a reference to some person or persons well acquainted with the sufficiency of the parties so offering to become bound, and persons in partnership with the contractor or with each other will not be accepted as sureties.

FORM of the Tender for Supplying the Undermentioned Quantities of Preserved Meat and Medical Comforts for the Service of Her Majesty's Navy.

Sir, 25 April 1850.

I OFFER to supply the articles undermentioned at the prices following, and according to the conditions hereinafter contained.

PRESERVED MEAT, viz.:

1,000,000 lbs. Boiled beef - - - -	at 5 $\frac{7}{8}$ *d.*	per lb.

MEDICAL COMFORTS, viz.:

1,000 lbs. Soup and bouilli - - - -	at	per lb.
1,000 lbs. Boiled mutton - - - -	at	per lb.
1,000 pints Mutton broth - - - -	at	per pint.
1,000 $\frac{1}{4}$ pints Concentrated gravy - - -	at	per $\frac{1}{4}$ pint.

The prices to include the value of the canisters in every case.

I am, Sir,
Your very humble servant,

Signature *Charles Baker.*
Address Newgate Market.

Secretary of the Admiralty.

CONDITIONS

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Conditions of the Contract.

The Lords Commissioners of the Admiralty reserve to themselves the power of giving the whole contract, on the day of treaty, to one firm, or of dividing it equally between two or more firms.

The whole quantity of preserved beef is to be delivered within 12 months from the day of treaty (free of all charge for carriage and other expenses) into store at Deptford, Portsmouth, and Plymouth Victualling Yards, and in such quantities at each yard as the Commissioners shall from time to time direct; and one-fourth part of the whole quantity is to be so delivered at the end of every two or three months, or at such other periods as may best suit the convenience of Her Majesty's service.

The medical comforts are all to be delivered at Deptford within 12 months, and in four equal deliveries, one at the end of every three months.

All the preserved meat and medical comforts to be of the best quality, and, as far as practicable, the meat to be in whole pieces; and no canister to contain any bone, offal-meat, intestines, vegetables, or any other meat or substances whatever not permitted by the contract, and all the articles to be good and fit for the service, and such as the proper receiving officers shall approve of, otherwise they shall be at liberty to reject the same.

No more gravy to be put into any canister of meat than is absolutely necessary for the preservation of the contents, and all the gravy that may be supplied is to be of a strong and pure quality.

One-third of the preserved beef to be delivered in canisters, each containing 6 lbs. when opened; another one-third in canisters, each containing 9 lbs. when opened, and the remainder in canisters, each containing 12 lbs. when opened; and the medical comforts to be delivered in canisters of the following sizes:—

Soup and bouilli Boiled mutton -	In canisters, each containing 1 lb. -	When opened.
Mutton broth, in canisters, each containing 1 pint - -		
Concentrated gravy, in canisters, each containing a ¼ pint		

Note.—The pound weight is to contain 16 ounces.

All the canisters to be made of tin plates of the best quality, and of a substance sufficiently strong for securing the preservation of their contents during the whole period of warranty of five years, and to be well and sufficiently painted on the outside, and to have a metal plate affixed to them, or to have stamped on them the initials of the contractor, the description and weight of the contents, and the date of the year when filled.

The contractor is to give timely notice to the Commissioners, in writing, of the periods when and where he intends to commence preserving the articles to be supplied under the contract, in order that, if they think it necessary, they may send an inspector to his factory to ascertain that the process is conducted in every respect in accordance with its conditions.

The officers at the respective yards are to have the power to open

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as many canisters, when delivered, as they may think proper, for the purpose of seeing that the contents are agreeable to the terms of the contract, and the contractor is forthwith to remove such canisters with their contents, although of an approved quality, and to replace the same with other similar cases and contents, free of all charge.

A mulct, equal to the value of the canister and its contents, will be inflicted on the contractor for every canister found on delivery, or at any time within five years from the date of the supply, to be deficient in weight, or to contain any bone, offal-meat, intestines, vegetables, or other meats or substances already prohibited, or any undue quantity of gravy, or gravy deficient in strength or purity, or whose contents shall have become putrid, or shall be deemed, on survey, unfit for consumption either from collapse or bursting of the canister, or from any other cause whatsoever; and the contractor shall also pay back all such sum or sums of money as he may have been paid for the same, and the amount of all such mulcts and repayments to be either deducted from time to time from any bill or bills payable to him, or to become otherwise payable to and recoverable by Her Majesty.

In case of any breach of the contract the Commissioners to have power to put an immediate termination to it without the contractor being entitled to any compensation, and also to have the power to purchase and charge the contractor with all extra expenses, in case he fails in making the prescribed deliveries and replacing rejections at the said yards.

Payments will from time to time be made for the articles by bills at sight on Her Majesty's Paymaster-general.

The contract not to be transferred, and no Member of the House of Commons to have any share therein.

Every tender must be accompanied by a letter signed by two responsible persons offering to become bound with the person tendering in the sum of 6,000 *l.* for the due performance of the whole contract, or in a due proportion of that sum for a part only, and the letter must contain a reference to some person or persons well acquainted with the sufficiency of the parties so offering to become bound, and persons in partnership with the contractor or with each other will not be accepted as sureties.

FORM of the Tender for Supplying the undermentioned Quantities of Preserved Meat and Medical Comforts for the Service of Her Majesty's Navy.

Sir, London, 25 April 1850.

I OFFER to supply the articles undermentioned at the prices following, and according to the conditions hereinafter contained.

PRESERVED MEAT, viz.:—

1,000,000 lbs. Boiled beef - - - - at 5 ½ *d.* per lb.

MEDICAL

Medical Comforts, viz. :—

1,000 lbs. Soup and bouilli - - -	at 5 *d.* per lb.
1,000 lbs. Boiled mutton - - - -	at 7 *d.* per lb.
1,000 pints Mutton broth - - -	at 6 *d.* per pint.
1,000 ¼ pints Concentrated gravy - -	at 5 *d.* per ¼ pint.

The prices to include the value of the canisters in every case.

I am, Sir,
Your very humble Servant,
Jn°. D. Pettit.

Signature _____

Address _____

Secretary of the Admiralty.

Conditions of the Contract.

The Lords Commissioners of the Admiralty reserve to themselves the power of giving the whole contract, on the day of treaty, to one firm, or of dividing it equally between two or more firms.

The whole quantity of preserved beef is to be delivered within 12 months from the day of treaty (free of all charge for carriage and other expenses) into store at Deptford, Portsmouth, and Plymouth Victualling Yards, and in such quantities at each yard as the Commissioners shall from time to time direct; and one-fourth part of the whole quantity is to be so delivered at the end of every two or three months, or at such other periods as may best suit the convenience of Her Majesty's service.

The medical comforts are all to be delivered at Deptford within 12 months, and in four equal deliveries, one at the end of every three months.

All the preserved meat and medical comforts to be of the best quality, and, as far as practicable, the meat to be in whole pieces; and no canister to contain any bone, offal-meat, intestines, vegetables, or any other meat or substances whatever not permitted by the contract; and all the articles to be good and fit for the service, and such as the proper receiving officers shall approve of, otherwise they shall be at liberty to reject the same.

No more gravy to be put into any canister of meat than is absolutely necessary for the preservation of the contents, and all the gravy that may be supplied is to be of a strong and pure quality.

One-third of the preserved beef to be delivered in canisters, each containing 6 lbs. when opened; another one-third in canisters, each containing 9 lbs. when opened; and the remainder in canisters, each containing 12 lbs. when opened; and the medical comforts to be delivered in canisters of the following sizes :—

Soup and bouilli Boiled mutton	In canisters, each containing 1 lb.	when opened.
Mutton broth	In canisters, each containing 1 pint.	
Concentrated gravy	In canisters, each containing a ¼ pint.	

Note.—The pound weight is to contain 16 ounces.

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All the canisters to be made of tin plates of the best quality, and of a substance sufficiently strong for securing the preservation of their contents during the whole period of warranty of five years, and to be well and sufficiently painted on the outside, and to have a metal plate affixed to them, or to have stamped on them the initials of the contractor, the description and weight of the contents, and the date of the year when filled.

The contractor is to give timely notice to the Commissioners, in writing, of the periods when and where he intends to commence preserving the articles to be supplied under the contract, in order that, if they think it necessary, they may send an inspector to his factory to ascertain that the process is conducted in every respect in accordance with its conditions.

The officers at the respective yards are to have the power to open as many canisters, when delivered, as they may think proper, for the purpose of seeing that the contents are agreeable to the terms of the contract, and the contractor is forthwith to remove such canisters with their contents, although of an approved quality, and to replace the same with other similar cases and contents, free of all charge.

A mulct, equal to the value of the canister and its contents, will be inflicted on the contractor for every canister found on delivery, or at any time within five years from the date of the supply, to be deficient in weight, or to contain any bone, offal-meat, intestines, vegetables, or other meats or substances already prohibited, or any undue quantity of gravy, or gravy deficient in strength or purity, or whose contents shall have become putrid, or shall be deemed, on survey, unfit for consumption, either from collapse or from bursting of the canister, or from any other cause whatsoever; and the contractor shall also pay back all such sum or sums of money as he may been paid for the same, and the amount of all such mulcts and repayments to be either deducted from time to time from any bill or bills payable to him, or to become otherwise payable to and recoverable by Her Majesty.

In case of any breach of the contract the Commissioners to have power to put an immediate termination to it, without the contractor being entitled to any compensation, and also to have the power to purchase and charge the contractor with all extra expenses, in case he fails in making the prescribed deliveries, and replacing rejections at the said yards.

Payments will from time to time be made for the articles by bills at sight on Her Majesty's Paymaster-general.

The contract not to be transferred, and no Member of the House of Commons to have any share therein.

Every tender must be accompanied by a letter signed by two responsible persons offering to become bound with the person tendering in the sum of 6,000 *l.* for the due performance of the whole contract, or in a due proportion of that sum for a part only; and the letter must contain a reference to some person or persons well acquainted with the sufficiency of the parties so offering to become bound, and persons in partnership with the contractor or with each other will not be accepted as sureties.

FORM

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FORM of the Tender for Supplying the undermentioned Quantities of Preserved Meat and Medical Comforts for the Service of Her Majesty's Navy.

Sir, 25 April 1850.

I OFFER to supply the articles undermentioned at the prices following, and according to the conditions hereinafter contained.

PRESERVED MEAT, viz.:—

4,500 lbs. Boiled beef - - - at 6*d.* per lb., deliverable at Deptford, all in 6 lb. canisters, and now lying in London, manufactured by W. T. Geddes & Yule, at Buenos Ayres.

The prices to include the value of the canisters in every case.

A further shipment is daily expected, consisting of 10,000 lbs., and others to follow.

I am, Sir,
Your very humble servant,
As agent for W. T. Geddes & Yule, Buenos Ayres,
William F. Roberts,
78, Great Tower-street.

Signature_____

Address_____

Secretary of the Admiralty.

CONDITIONS of the Contract.

THE Lords Commissioners of the Admiralty reserve to themselves the power of giving the whole contract, on the day of treaty, to one firm, or of dividing it equally between two or more firms.

The whole quantity of preserved beef is to be delivered within 12 months from the day of treaty (free of all charge for carriage and other expenses) into store at Deptford, Portsmouth, and Plymouth Victualling Yards, and in such quantities at each yard as the Commissioners shall from time to time direct; and one-fourth part of the whole quantity is to be so delivered at the end of every two or three months, or at such other periods as may best suit the convenience of Her Majesty's service.

The medical comforts are all to be delivered at Deptford within 12 months, and in four equal deliveries, one at the end of every three months.

All the preserved meat and medical comforts to be of the best quality, and, as far as practicable, the meat to be in whole pieces; and no canister to contain any bone, offal-meat, intestines, vegetables, or any other meat or substances whatever not permitted by the contract, and all the articles to be good and fit for the service, and such as

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as the proper receiving officers shall approve of, otherwise they shall be at liberty to reject the same.

No more gravy to be put into any canister of meat than is absolutely necessary for the preservation of the contents, and all the gravy that may be supplied is to be of a strong and pure quality,

One-third of the preserved beef to be delivered in canisters, each containing 6 lbs. when opened; another one-third in canisters, each containing 9 lbs. when opened; and the remainder in canisters, each containing 12 lbs. when opened; and the medical comforts to be delivered in canisters of the following sizes:—

Soup and bouilli - Boiled mutton -	In canisters, each containing 1 lb.	when opened.
Mutton broth -	In canisters, each containg 1 pint	
Concentrated gravy	In canisters, each containing a $\frac{1}{4}$ pint	

Note.—The pound weight is to contain 16 ounces.

All the canisters to be made of tin plates of the best quality, and of a substance sufficiently strong for securing the preservation of their contents during the whole period of warranty of five years, and to be well and sufficiently painted on the outside, and to have a metal plate affixed to them, or to have stamped on them the initials of the contractor, the description and weight of the contents, and the date of the year when filled.

The contractor is to give timely notice to the Commissioners, in writing, of the periods when and where he intends to commence preserving the articles to be supplied under the contract, in order that, if they think it necessary, they may send an inspector to his factory to ascertain that the process is conducted in every respect in accordance with its conditions.

The officers at the respective yards are to have the power to open as many canisters, when delivered, as they may think proper, for the purpose of seeing that the contents are agreeable to the terms of the contract, and the contractor is forthwith to remove such canisters with their contents, although of an approved quality, and to replace the same with other similar cases and contents, free of all charge.

A mulct, equal to the value of the canister and its contents, will be inflicted on the contractor for every canister found on delivery, or at any time within five years from the date of the supply, to be deficient in weight, or to contain any bone, offal-meat, intestines, vegetables, or other meats or substances already prohibited, or any undue quantity of gravy, or gravy deficient in strength or purity, or whose contents shall have become putrid, or shall be deemed, on survey, unfit for consumption either from collapse or bursting of the canister, or from any other cause whatsoever; and the contractor shall also pay back all such sum or sums of money as he may have been paid for the same, and the amount of all such mulcts and repayments to be either deducted from time to time from any bill or bills payable to him, or to become otherwise payable to and recoverable by Her Majesty.

In case of any breach of the contract the Commissioners to have power to put an immediate termination to it without the contractor being entitled to any compensation, and also to have the power to purchase

purchase and charge the contractor with all extra expenses, in case he fails in making the prescribed deliveries and replacing rejections at the said yards.

Payments will from time to time be made for the articles by bills at sight on Her Majesty's Paymaster-general.

The contract not to be transferred, and no Member of the House of Commons to have any share therein.

Every tender must be accompanied by a letter signed by two responsible persons offering to become bound with the person tendering in the sum of 6,000 *l.* for the due performance of the whole contract, or in a due proportion of that sum for a part only, and the letter must contain a reference to some person or persons well acquainted with the sufficiency of the parties so offering to become bound, and persons in partnership with the contractor, or with each other, will not be accepted as sureties.

FORM of the Tender for supplying the undermentioned Quantities of Preserved Meat and Medical Comforts, for the Service of Her Majesty's Navy.

Sir, 25 April 1850.

I OFFER to supply the articles undermentioned at the prices following, and according to the conditions hereinafter contained.

PRESERVED MEAT, viz.:

250,000 lbs. Boiled beef - - - - at 6 ¾ *d.* per lb.

MEDICAL COMFORTS, viz.:

1,000 lbs. Soup and bouilli - - - at 7 ½ *d.* per lb.
1,000 lbs. Boiled mutton - - - - at 9 *d.* per lb.
1,000 pints Mutton broth - - - at 7 ½ *d.* per pint.
1,000 ¼ pints Concentrated gravy - - at 6 *d.* per ¼ pint.

The prices to include the value of the canisters in every case.

I am, Sir,
Your very humble servant,
B. Moir.

Signature, *B. Moir.*
Address, Aberdeen, N. B.

Secretary of the Admiralty.

CONDITIONS OF THE CONTRACT.

THE Lords Commissioners of the Admiralty reserve to themselves the power of giving the whole contract, on the day of treaty, to one firm, or of dividing it equally between two or more firms.

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The whole quantity of preserved beef is to be delivered within twelve months from the day of treaty (free of all charge for carriage and other expenses), into store at Deptford, Portsmouth and Plymouth victualling yards, and in such quantities at each yard as the Commissioners shall from time to time direct; and one-fourth part of the whole quantity is to be so delivered at the end of every two or three months, or at such other periods as may best suit the convenience of Her Majesty's service.

The medical comforts are all to be delivered at Deptford within 12 months, and in four equal deliveries, one at the end of every three months.

All the preserved meat and medical comforts to be of the best quality, and, as far as practicable, the meat to be in whole pieces; and no canister to contain any bone, offal-meat, intestines, vegetables, or any other meat or substances whatever not permitted by the contract, and all the articles to be good and fit for the service, and such as the proper receiving officers shall approve of, otherwise they shall be at liberty to reject the same.

No more gravy to be put into any canister of meat than is absolutely necessary for the preservation of the contents, and all the gravy that may be supplied is to be of a strong and pure quality.

One-third of the preserved beef to be delivered in canisters, each containing 6 lbs. when opened; another one-third in canisters, each containing 9 lbs. when opened, and the remainder in canisters, each containing 12 lbs. when opened; and the medical comforts to be delivered in canisters of the following sizes:

Soup and bouilli - Boiled mutton -	In canisters, each containing 1 lb.	When opened.
Mutton broth -	In canisters, each containing 1 pint.	
Concentrated gravy,	In canisters, each containing a ½ pint.	

Note.—The pound weight is to contain 16 ounces.

All the canisters to be made of tin plates of the best quality, and of a substance sufficiently strong for securing the preservation of their contents during the whole period of warranty of five years, and to be well and sufficiently painted on the outside, and to have a metal plate affixed to them, or to have stamped on them the initials of the contractor, the description and weight of the contents, and the date of the year when filled.

The contractor is to give timely notice to the Commissioners, in writing, of the periods when and where he intends to commence preserving the articles to be supplied under the contract, in order that, if they think it necessary, they may send an inspector to his factory to ascertain that the process is conducted in every respect in accordance with its conditions.

The officers at the respective yards are to have the power to open as many canisters, when delivered, as they may think proper, for the purpose of seeing that the contents are agreeable to the terms of the contract, and the contractor is forthwith to remove such canisters with their contents, although of an approved quality, and to replace the same with other similar cases and contents, free of all charge.

A mulct,

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A mulct, equal to the value of the canister and its contents, will be inflicted on the contractor for every canister found on delivery, or at any time within five years from the date of the supply, to be deficient in weight, or to contain any bone, offal-meat, intestines, vegetables, or other meats or substances already prohibited, or any undue quantity of gravy, or gravy deficient in strength or purity, or whose contents shall have become putrid or shall be deemed, on survey, unfit for consumption either from collapse or bursting of the canister, or from any other cause whatsoever; and the contractor shall also pay back all such sum or sums of money as he may have been paid for the same, and the amount of all such mulcts and repayments to be either deducted from time to time from any bill or bills payable to him, or to become otherwise payable to and recoverable by Her Majesty.

In case of any breach of the contract the Commissioners to have power to put an immediate termination to it without the contractor being entitled to any compensation, and also to have the power to purchase and charge the contractor with all extra expenses, in case he fails in making the prescribed deliveries and replacing rejections at the said yards.

Payments will from time to time be made for the articles by bills at sight on Her Majesty's Paymaster-general.

The contract not to be transferred, and no Member of the House of Commons to have any share therein.

Every tender must be accompanied by a letter signed by two responsible persons offering to become bound with the person tendering in the sum of 6,000 *l.* for the due performance of the whole contract, or in a due proportion of that sum for a part only, and the letter must contain a reference to some person or persons well acquainted with the sufficiency of the parties so offering to become bound, and persons in partnership with the contractor or with each other will not be accepted as sureties.

FORM of the Tender for supplying the undermentioned Quantities of Preserved Meat and Medical Comforts for the Service of Her Majesty's Navy.

Sir, 25 April 1850.

I OFFER to supply the articles undermentioned at the prices following, and according to the conditions hereinafter contained.

PRESERVED MEAT, viz.:

1,000,000 lbs. boiled beef	- at 5 *d.*	per lb.	in 12 lb.	canisters.
The whole or part - -	- at 5½ *d.*	„ „	9 lb.	„
„ „ - -	- at 5½ *d.*	„ „	6 lb.	„

MEDICAL COMFORTS, viz.:

1,000 lbs. Soup and bouilli - - - -	at 7 *d.* per lb.
1,000 lbs. Boiled mutton - - - -	at 7 *d.* per lb.
1,000 pints Mutton broth - - - -	at 7 *d.* per pint.
1,000 ¼ pints Concentrated gravy - - -	at 5 *d.* per ¼ pint.

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The prices to include the value of the canisters in every case.

The meat preserved under Goldner's patent by special licence.

I am, Sir,
Your very humble servant,
Sam. S. Ritchie.

Signature, _____.

Address, 137, Houndsditch.

Secretary of the Admiralty.

CONDITIONS OF THE CONTRACT.

THE Lords Commissioners of the Admiralty reserve to themselves the power of giving the whole contract, on the day of treaty, to one firm or of dividing it equally between two or more firms.

The whole quantity of preserved beef is to be delivered within 12 months from the day of treaty (free of all charge for carriage and other expenses) into store at Deptford, Portsmouth and Plymouth victualling yards, and in such quantities at each yard as the Commissioners shall from time to time direct; and one-fourth part of the whole quantity is to be so delivered at the end of every two or three months, or at such other periods as may best suit the convenience of Her Majesty's service.

The medical comforts are all to be delivered at Deptford within 12 months, and in four equal deliveries, one at the end of every three months.

All the preserved meat and medical comforts to be of the best quality, and, as far as practicable, the meat to be in whole pieces; and no canister to contain any bone, offal-meat, intestines, vegetables, or any other meat or substances whatever not permitted by the contract, and all the articles to be good and fit for the service, and such as the proper receiving officers shall approve of, otherwise they shall be at liberty to reject the same.

No more gravy to be put into any canister of meat than is absolutely necessary for the preservation of the contents, and all the gravy that may be supplied is to be of a strong and pure quality.

One-third of the preserved beef to be delivered in canisters, each containing 6 lbs. when opened; another one-third in canisters, each containing 9 lbs. when opened, and the remainder in canisters, each containing 12 lbs. when opened; and the medical comforts to be delivrred in canisters of the following sizes:

Soup and bouilli -	In canisters, each containing 1 lb.	When opened.
Boiled mutton -		
Mutton broth -	In canisters, each containing 1 pint.	
Concentrated gravy,	In canisters, each containing a ¼ pint.	

Note.—The pound weight is to contain 16 ounces.

All the canisters to be made of tin plates of the best quality, and of a substance sufficiently strong for securing the preservation of their contents during the whole period of warrantry of five years, and to

to be well and sufficiently painted on the outside, and to have a metal plate affixed to them, or to have stamped on them the initials of the contractor, the description and weight of the contents, and the date of the year when filled.

The contractor is to give timely notice to the Commissioners, in writing, of the periods when and where he intends to commence preserving the articles to be supplied under the contract, in order that, if they think it necessary, they may send an inspector to his factory to ascertain that the process is conducted in every respect in accordance with its conditions.

The officers at the respective yards are to have the power to open as many canisters, when delivered, as they may think proper, for the purpose of seeing that the contents are agreeable to the terms of the contract, and the contractor is forthwith to remove such canisters with their contents, although of an approved quality, and to replace the same with other similar cases and contents, free of all charge.

A mulct, equal to the value of the canister and its contents, will be inflicted on the contractor for every canister found on delivery, or at any time within five years from the date of the supply, to be deficient in weight, or to contain any bone, offal-meat, intestines, vegetables, or other meats or substances already prohibited, or any undue quantity of gravy, or gravy deficient in strength or purity, or whose contents shall have become putrid, or shall be deemed, on survey, unfit for consumption either from collapse or bursting of the canister, or from any other cause whatsoever; and the contractor shall also pay back all such sum or sums of money as he may have been paid for the same, and the amount of all such mulcts and repayments to be either deducted from time to time from any bill or bills payable to him, or to become otherwise payable to and recoverable by Her Majesty.

In case of any breach of the contract, the Commissioners to have power to put an immediate termination to it without the contractor being entitled to any compensation, and also to have the power to purchase and charge the contractor with all extra expenses, in case he fails in making the prescribed deliveries and replacing rejections at the said yards.

Payments will from time to time be made for the articles by bills at sight on Her Majesty's Paymaster-general.

The contract not to be transferred, and no Member of the House of Commons to have any share therein.

Every tender must be accompanied by a letter signed by two responsible persons offering to become bound with the person tendering, in the sum of 6,000 *l.* for the due performance of the whole contract, or in a due proportion of that sum for a part only, and the letter must contain a reference to some person or persons well acquainted with the sufficiency of the parties so offering to become bound, and persons in partnership with the contractor, or with each other, will not be accepted as sureties.

ABSTRACT of Tenders for 1,000,000 lbs. of PRESERVED MEATS, to be delivered into Her Majesty's Victualling Yards at Deptford, Portsmouth, or Plymouth, and for the following Quantities of MEDICAL COMFORTS, to be delivered at Deptford; viz., Soup and Bouilli, 1,000 lbs., Boiled Mutton, 1,000 lbs., Mutton Broth, 1,000 pints, and Concentrated Gravy, 1,000 quarter pints.

NAMES of PARTIES TENDERING.	PRESERVED MEATS.		MEDICAL COMFORTS.							
			Soup and Bouilli.		Boiled Mutton.		Mutton Broth.		Concentrated Gravy.	
	Quantity.	Price per lb.	Quantity.	Price per lb.	Quantity.	Price per lb.	Quantity.	Price per Pint.	Quantity.	Price per ¼ Pint.
	Lbs.	*d.*	*Lbs.*	*d.*		*d.*	*Pints.*	*d.*	*¼ Pints.*	*d.*
J. H. Gamble, London -	1,000,000	6½	1,000	8	1,000	8½	1,000	5	1,000	4½
W. & T. Cooper, London -	200,000	7½	1,000	6½	1,000	9	1,000	5	1,000	5
J. Gillon & Co., Leith -	250,000	6⅜	1,000	5½	1,000	7	1,000	5	1,000	4¾
			Accept for Medical Comforts.			(signed)	*A. M.*			
A. R. M'Swiney, Cork -	1,000,000	5 15/16	1,000	6	1,000	7	1,000	7	1,000	6
Henry Powell & Son, London, for Dickson, Hogarth & Co., Aberdeen -	15 to 20,000 lbs. in 6 lb. canisters	5 98/100	1,000	5¾	1,000	7¾	1,000	6¾	1,000	4½
	12 to 13,000 lbs. in 9 lb. „	5 49/100								
	10 to 11,000 lbs. in 12 lb. „	5 49/100								
Charles Baker, London -	1,000,000	5⅞	—	—	—	—	—	—	—	—
J. D. Petit, London - -	1,000,000	5½	1,000	5	1,000	7	1,000	6	1,000	5
Geddes & Yule, of Buenos Ayres, per W. F. Roberts	4,500	6	—	—	—	—	—	—	—	—
B. Moir, Aberdeen - -	250,000	6¾	1,000	7½	1,000	9	1,000	7½	1,000	6
S. S. Ritchie, London -	1,000,000, the whole or part - -	12 lbs. - 5	1,000	7	1,000	7	1,000	7	1,000	5
		9 „ - 5¼								
		6 „ - 5½								
S. Goldner - - - -	1,000,000, the whole or part - -	12 lbs. - 4¾	1,000	6	1,000	6	1,000	6	1,000	5
		9 „ - 5								
		6 „ - 5⅛								
			Only if Tender for Boiled Beef be accepted.							
Ditto - for three years -	1,000,000 - -	12 lbs. - 4½	—	—	—	—	—	—	—	—
		9 „ - 4¾								
		6 „ - 4⅞								
	See explanation as to quantity of meat in a 12 lb. canister.									

Admiralty, 25 April 1850.

(signed) *J. M.*

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Accept:

Mr. Goldner for one year for 500,000 lbs.

Mr. Ritchie for - - - - - 250,000 lbs. [Cancelled 16 May 1850 (signed) *A. M.*] Provided manufactured in England, and to which he will be called upon to certify, and the Board will not sanction or receive any meat from him of the cure of any other place or manufactory whatever; and if he should attempt to deliver, or should it be proved to have not been cured by him, it will be thrown back upon his hands.

Accept also:

Messrs. Dickson & Hogarth for 24,000 lbs., 12 in 9 lb. canisters - - - - } (In pencil) Suspended by C. of V.

1 May. (signed) *A. Milne.*

2 May. Acquaint them accordingly. (signed) *J. M.*

14 May 1850. Accept Messrs. Powell's offer for 24,000 lbs. of preserved meats, in 9 and 12 lb. canisters.

(signed) *A. Milne.*

Mr. Goldner informed of the acceptance of his offer for 500,000 lbs., on the 2d May 1850.

Messrs. J. Gillon & Co. informed of the acceptance of their tender for medical comforts on the 26th April 1850.

Messrs. H. Powell & Son informed of the acceptance of their tender for 24,000 lbs. on the 16th May 1850.

Mr. S. S. Ritchie informed, 16 May - } That their tenders have not been accepted.

The other parties informed, 26 April - }

STATEMENT, showing the Average Prices of Beef and Pork in Newgate and Leadenhall Markets, in the Years 1845, 1846, 1847, 1848, 1849, 1850 and 1851; the Contract Prices for the same at Greenwich Hospital for the same years, specifying, in particular, the Contract Prices of each in January and February 1851, and August and September 1851; the Regulated Allowance of Salt Meats issued to each of Her Majesty's Ships on the West India Station, from the 1st January to 23d June 1851, both of Salt Beef and Pork, placed each in a column, and added to the Return presented, before the column of the Extra Quantity issued of each description of Meat.

Particulars Required.	
The average prices of beef and pork in Newgate and Leadenhall Markets, in the years 1845, 1846, 1847, 1848, 1849, 1850 and 1851. The contract prices for the same at Greenwich Hospital for the same years, specifying, in particular, the contract prices of each in January and February 1851, and August and September 1851.	- - - - There are no means in the Naval Department of furnishing the information required.

SHIP.	PERIOD.	SALT BEEF. The regulated Allowance of Salt Beef issued to (the Crews of) H. M. Ships on the West India Station.	SALT BEEF. Extra issued to make up the regulated Allowance.	SALT BEEF. Condemned. Thrown overboard.	SALT BEEF. Condemned. Sold on Her Majesty's account.	SALT PORK. The regulated Allowance of Salt Pork issued to (the Crews of) H. M. Ships on the West India Station.	SALT PORK. Extra issued to make up the regulated Allowance.	SALT PORK. Condemned. Thrown overboard.	SALT PORK. Condemned. Sold on Her Majesty's account.
	1851:	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*
Wellesley -	1 Jan. to 23 June	11,384	5,152	- -	120	10,848	- -	- -	1,224
Sappho - -	1 Jan. – 30 Sept.	3,318	1,354	- -	- -	7,082	2,174	—	—
Persian - -	1 Jan. – 30 Sept.	2,610	1,132	- -	- -	5,189	1,337	—	—
Helena - -	1 Jan. – 29 Nov.	3,512	2,056	- -	- -	8,082	1,208	—	—
Bermuda -	1 Jan. – 30 June	1,564	321	- -	- -	1,971	452	—	—
Alarm - -	1 Jan. – 7 Nov.	6,527	2,748	1,108	1,824	14,098	4,290	—	—
Inflexible -	1 Jan. – 30 Sept.	5,624	381	- -	- -	11,128	- -	288	—
								No voucher received.	
Imaum - -	1 Jan. – 30 Sept.	6,240	416	256	- -	8,028	- -	208	—

The regulated allowance of salt meats issued to each of Her Majesty's ships on the West India Station, from the 1st January to 23d June 1851, both of salt beef and pork, placed each in a column, and added to the Return presented, before the column of the extra quantity issued of each description of meat.

Admiralty, 11 March 1852.

Thos. T. Grant, Comptroller of Victualling.

App. No. 1.

A RETURN of the CONTRACT PRICES of Mutton, Beef, and Pork, for Greenwich Hospital, for the Years 1845, 1846, 1847, 1848, 1849, 1850, and 1851, inclusive.

THERE being two contracts in each year, the average is, per annum, per cwt., as follows, viz.:

	£.	s.	d.
1845	2	6	9
1846	2	13	4½
1847	2	14	5½
1848	2	11	7½
1849	2	1	5½
1850	2	2	1
1851	2		9
The contract price in January and February 1851	2	1	4
The contract price in August and September 1851	2	–	2

Greenwich Hospital, 27 February 1852.

John Elliot,
Steward.

Jn°. W. Nicholls,
Clerk of the Cheque.

By order of the Commissioners,

J. Livingston Jay,
Assistant Secretary.

Appendix, No. 2.

App. No. 2. CORRESPONDENCE relative to the Mode of Cure and Preparation of PRESERVED MEATS in Mr. *Goldner*'s Manufactory at *Galatz*.

Sir, Admiralty, 26 April 1851.

MY Lords Commissioners of the Admiralty having entered into a contract for the supply of preserved meat for the Royal Navy with a Mr. Goldner, whose manufactory is at Galatz, and as by the stipulation of the contract his manufactory may be inspected by an officer, or other person appointed by the Admiralty, I am to request that you will move Viscount Palmerston to instruct Her Majesty's consul, or other Government agent at the above-named place, to inspect and report on the mode of cure, and preparation of these preserved meats.

My Lords have been induced to take this step from the serious complaints which have been made from the seamen of the fleet, of the inferiority of the meat; and the canisters, in many instances, containing the offal and parts of the intestines of the animals. A copy of the contract is herewith enclosed; and I am to request that it may be transmitted to Her Majesty's consul at Galatz, and that my Lords may be furnished with such information as he may be enabled to obtain on inquiry and inspection; and also as to whether the meat put into canisters for the Navy, has been previously deprived of its juices or fat, for private sale, by Mr. Goldner.

H. U. Addington, Esq.
Foreign Office.

I am, &c.
(signed) *J. Parker.*

Sir, Admiralty, 3 June 1851.

WITH reference to your letter of the 26th April last, requesting that Her Majesty's consul at Galatz, or some other person, might be directed to visit and inspect the establishments at that place for curing preserved meat for the use of the Navy, I am to acquaint you, for the information of Lord Palmerston, that they have put an end to Mr. Goldner's contract in consequence of the inferior meat supplied; and, under the circumstances, they do not consider it necessary that the manufactory should be inspected. At the same time, they would be glad to obtain any information Her Majesty's consul may be enabled to convey with reference to the system pursued by Mr. Goldner in preserving provisions for the naval service.

H. U. Addington, Esq.
Foreign Office.

I am, &c.
(signed) *W. A. B. Hamilton.*

App. No. 2.

Sir, Foreign Office, 8 August 1851.

With reference to your letter of the 3d of June last, I am directed by Viscount Palmerston to send you, for the information of the Lords Commissioners of the Admiralty, the copy of a despatch from Vice-consul Cunningham, detailing the manner pursued by Mr. Goldner in preserving meat. *No. 80, of 1851.*

I am, &c.

John Parker, Esq., M.P. (signed) *H. U. Addington.*

My Lord, Galatz, 28 July 1851.

I have received, *viâ* Constantinople, the letter of the Honourable Under Secretary of State, my Lord Stanley, dated 7th ultimo, with an enclosure from the Admiralty, and from this I observe that my Lords Commissioners wish information as to the manner pursued by Mr. Goldner in preserving meat; I also observe that Mr. Goldner's contract for supplying preserved meat to the Navy has been cancelled, and therefore it is not necessary that I act as inspector.

I will at once give all the information I possess from my own knowledge and observation of the method pursued by Mr. Goldner in putting up the meat, and I believe it will be found to amount to nearly all that can be said on the subject. I must premise that not holding any personal intercourse with Mr. Goldner during the last 18 months, I cannot say anything of the manner followed in putting up the meat of the season 1850, but I presume it was the same as practised in former years.

From the time Mr. Goldner's factory was established here, some seven years ago, until about 18 months ago, I was on terms of intimacy with Mr. Goldner, and was often over his factory while the operation of preserving meat was going forward; also during the 15 years I have resided in this country I have often visited the tallow factories in Galatz and Ibraila, and have a good knowledge of the system pursued in tallow factories, and I have no hesitation in saying that latterly Mr. Goldner pursued exactly the same system in his factory as is pursued in the tallow factories; that is, he made the production of tallow the first and chief object and that of meat quite secondary.

As the best way of showing how Mr. Goldner prepared the meat for the Navy, I will describe how the meat is treated in the tallow factories. The ox being killed, the inside fat or suet is easily separated from the beef, and then the workmen commence cutting every particle of fat from the meat, and wherever a seam of fat is found it is followed out, and thus the meat is cut up into very small pieces. Such is the system followed in Mr. Goldner's factory.

The small pieces thus produced in the tallow factories are, I believe, a perquisite of the workmen, or an addition to their wages, and is sold at 10 paras Ibraila money per oke, or one-third of a penny per pound, and of this a large quantity of ordinary sausages are made.

No doubt in Mr. Goldner's factory some parts of the animal, not affording much fat, was not cut into these little bits, and the Victualling Office must know exactly what portion of Mr. Goldner's

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provisions were put up in small pieces, and what portion in pieces of a proper size. My impression is, that the canisters containing these small unshapely pieces, if not comprising the entire number, must have been three times greater than the canisters filled with well-sized pieces.

After the meat has been separated from the fat in Mr. Goldner's factory, it is put into vats and scalded or boiled, and then it is put into the canisters: as much meat is put into each canister as it will hold, and the crevices are filled with soup out of the vats in which the meat has been boiled.

The canisters are then submitted to the air-expelling process: I believe that in the boiling process, a further quantity of fat is taken from the meat.

I should not wish here to allude to anything personal between myself and Mr. Goldner were it not pertinent to the matter in hand, but as Mr. Goldner, in his letter of 21st February, to the Admiralty, complaining of my conduct towards him, among other things, says, I caused him to lose all control over his English workmen. On this point I have to remark, that Mr. Goldner was always in dispute with his workmen, not only English, but of all other nations; but at least the English workmen never beat Mr. Goldner, neither did Mr. Goldner beat the English workmen. Mr. Goldner, however, was in the habit of beating his German workmen, and his German workmen, to my knowledge, beat Goldner four times. I mention this merely to show the bad understanding between Mr. Goldner and his workmen generally; and a person employed in Mr. Goldner's factory told me, about six months ago, that several canisters sent home by Mr. Goldner as containing provisions, had been found to contain filth; so that probably many of the faults found with the provisions sent home by Mr. Goldner were caused by the bad and revengeful feelings on the part of his workmen.

I have no more to say on this subject, further than should any more information be required I will endeavour to obtain it.

I presume there can be no impropriety in my stating what I suppose to be the cost of good ox beef put up in canisters:

	d.
Cost of beef—Raw, 1 *d.* per lb., prepared - - -	1 ½
Cost of canisters and putting up, 1 ¼ *d.*, or - -	1 ½
Freight to England - - - - - -	– ⅓
Insurance 10% being always shipped in winter -	– ½
Porterage and petty expenses - - - - -	– ⅙
Cost, delivered in London, per lb. - -	4

This, I consider, must be very near the cost; but perhaps I may have over-estimated the cost of the meat or the canisters, ¼ *d.* each, so that possibly it may not cost over 3 ½ *d.* per lb. Should this meat cost only 3 ½ *d.*, the price of 5 *d.* per lb. seems ample to cover meat turning out bad, interests of money, commissions and profit; but should the meat cost 4 *d.* per lb., then it appears to me that 5 *d.* per pound is not a remunerative price. Mr. Goldner always boasted that the

the meat cost him nothing, the hide and tallow paying the cost of the ox. App. No. 2.

I have, &c.
(signed) *Charles Cunningham,*
Vice-Consul.

The Right Hon. Viscount Palmerston, G.C.B.,
H. M. Principal Secretary of State for Foreign Affairs,
London.

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27 August 1851.

SEND to the solicitor the letter of the 8th instant from the Foreign Office, enclosing a report from the Vice-consul at Galatz on the method adopted by Mr. Goldner in preserving meat for Her Majesty's Navy, and request him to state, for the information of their Lordships, whether, upon considering the circumstances therein stated, and the manner in which Mr. Goldner has throughout carried on his contract, he is of opinion that Mr. Goldner has rendered himself liable to a prosecution. (Part of 20/3076.)

Send also for his information Mr. Goldner's letter of the 11th inst. (20/3036) with former papers.

(signed) *T. T. Grant.*

(No. 545. PRESERVED MEAT. Mr. Goldner's Contract.)

Sir, Lancaster Place, 28 August 1851.

REFERRING to your letter to Mr. Robson of the 27th instant, transmitting one from the Foreign Office, enclosing a Report from the Vice-consul at Galatz on the method adopted by Mr. Goldner in preserving meat for Her Majesty's Navy, and requesting him to state, for the information of their Lordships, whether, upon considering the circumstances mentioned therein, and the manner in which Mr. Goldner has throughout carried on his contract, he was of opinion that Mr. Goldner had rendered himself liable to a prosecution, I beg leave, in the absence of Mr. Robson, to state, for the information of their Lordships, that having perused the Report of the Vice-consul at Galatz, I can find nothing in the mode of preserving the meat that would render Mr. Goldner liable to a criminal prosecution.

There appears to have been repeated quarrels between Mr. Goldner and his servants at the factory, which may account for the bad state of some of the canisters by the introduction of offal and filth. It is not likely that Mr. Goldner, under the serious penalties of his contract, would make himself a party to so flagrant a breach, which must fall upon himself; and unless he could be fixed with a knowledge of using or conniving at the use of some dangerous ingredients in the mode of curing or preserving the meat, he cannot be held criminally responsible for the acts of others.

I return the papers.

I am, &c.
(signed) *H. Swainson,*
For Mr. Robson, "Admiralty Solicitor,"
(Absent on leave.)

T. T. Grant, Esq.
&c. &c.

PRESERVED

App. No. 2.

PRESERVED MEAT.

(20/3533.)

Sir, Foreign Office, 19 September 1851.

WITH reference to my letter of the 13th ultimo, forwarding a copy of a despatch from the British Vice-consul at Galatz, containing information respecting Mr. Goldner's meat factory, I am directed by Viscount Palmerston to transmit to you, for the information of the Lords Commissioners of the Admiralty, a copy of a further despatch from Mr. Vice-consul Cunningham, containing further particulars respecting the manner of preserving meat in Mr. Goldner's factory at Galatz.

20/3175.

No. 34, 28 Aug. 1851.

I am, &c.

John Parker, Esq., M.P. (signed) *H. U. Addington.*
&c. &c. &c.

(No. 34.)

My Lord, Galatz, 28 August 1851.

SINCE I had the honour of addressing your Lordship on 28th ultimo, regarding the manner of preserving beef in Mr. Goldner's factory, I have conversed with two intelligent persons who were engaged last year in that factory.

Both agree in what I stated, that the meat was sacrificed to the tallow; one gave it as his opinion that the meat suffered by being too much boiled before it was put into canisters, and said he thought that the meat should be put into the canisters raw.

He also stated, that he considered a large quantity of the meat being of young cows, which was put up, was unfit for preserving. The other person who had been longer engaged in the factory stated, that when raw meat had been put into the canisters, however hard it was pressed in, it was found to shrink very much in the canisters in the process of preserving, and that the canisters were not full of meat when the process was over, and he considered it necessary to scald the meat before putting it into canisters.

The scalding, however, as practised, amounts to a very sufficient boiling, and after the preserving process, the meat must certainly be overcooked.

It is important to remark that during the season 1850, Mr. Goldner had not any preserver in his factory. He had brought out three preservers from London, a nephew of his own, and two persons named Marshall and Thorp. His nephew and Marshall died about three years ago, and Thorp left the employment last year before the preserving began. The process of preserving was, I believe, conducted last season by another nephew of Mr. Goldner's, a lad of about 16 years of age, who had no experience in preserving.

If the meat preserved last year has turned out in worse condition than former years, the absence of a proper preserver may account for it.

Thomas Thorp is, I believe, in London, and, I have been told, now keeps a public-house.

With regard to ox and cow beef, the grass-fed oxen are ready for killing

killing about the beginning or middle of August, and it is about this season that the tallow factories begin working.

All the oxen are generally slaughtered before the end of September, and then the slaughtering of the cows commences, and continues until the beginning of November.

Mr. Goldner generally commenced preserving about the beginning of August, commencing with oxen, and continuing until the end of December; but during the months of November and December the cattle had been fed on hay, which added considerably to the cost.

I have, &c.
(signed) *Charles Cunningham,*
Vice-Consul.

The Viscount Palmerston, G. C. B.
&c. &c. &c.

Sir, Foreign Office, 14 October 1851.

With reference to my letters of the 13th August and 19th ultimo, respecting Mr. Goldner's meat factory at Galatz, I am directed by Viscount Palmerston to transmit to you, for the information of the Lords Commissioners of the Admiralty, a copy of a further despatch from the British Vice-consul at Galatz, accounting, in some measure, for the defective state of the preserved meat supplied to the Admiralty in 1850.

I am, &c.
(signed) *H. U. Addington.*

John Parker, Esq, M. P.
&c. &c.

My Lord, Galatz, 22 September 1851.

I have the honour to acknowledge the receipt of the letter addressed to me by John Bidwell, esq., under date of 20th ultimo, with copy of a letter from my Lords Commissioners of the Admiralty, acknowledging my letter of 28th July, regarding the manner of putting up the preserved meat in Mr. Goldner's factory.

As I again addressed your Lordship on this matter on the 28th ultimo, it might be supposed I had exhausted the subject, but as it appears that the condition of the preserved meat furnished to the navy for some years past, is causing considerable sensation, and as I hope, and have some reason to believe, that the preserved meat sent from Galatz previous to the season of 1850, if not faultless, was at least not defective to an extent to cause uneasiness for vessels provisioned with it, I must consider that I am doing good service, if I can show on sufficient grounds that the meat sent home previous to 1850 was sounder than what was sent home at the end of that year.

I have again conversed with a person who was long in Mr. Goldner's employment, and he tells me that upwards of 200 carcases of meat were thrown into the river last season in a state of putrefaction. My informant says, that on several occasions when a large quantity of meat was killed, some one of the tinmen got about Mr. Goldner in such a way as to provoke Mr. Goldner to strike him, and that so soon

App. No. 2.

soon as Mr. Goldner had struck one, all the tinmen left their work and came into Galatz to complain, and before the matter could be arranged and the men brought back to their work, the meat that had been previously killed was no longer in a fit state to be preserved. But if so much meat was thrown into the river, no doubt much must also have been put into the canisters far gone towards putrefaction.

I think therefore that the want of regular preservers, and the vindictive feeling on the part of the workmen, which seems to have been stronger last year than previously, sufficiently account for the meat sent home last winter being in every respect worse conditioned than on all previous years; and that therefore there is no occasion for anxiety about the preserved meat from Galatz, previously given to vessels, turning out bad in any considerable proportion.

Last winter there were only two Englishmen employed in Mr. Goldner's factory; one of them his clerk, and the other a foreman of the tinmen, who is since dead.

I do not intend to recur to this subject, unless something unforeseen should render it necessary.

I have, &c.
(signed) *Charles Cunningham,*
Vice-Consul.

Right Hon. Viscount Palmerston, G. C. B.,
&c. &c. &c.

Admiralty, 22 March 1852.

COPY of the REPORT of Mr. *Grant* to the Board of Admiralty, of the Statement made by Mr. Goldner's Workman, in the presence of the Solicitor of the Admiralty, as to Goldner's character, and the manner in which his Business at *Galatz* was conducted.

BROUGHT under the notice of the Board, 30 January 1852, at Somerset House.

(signed) *T. T. Grant.*

STATEMENT of *Thomas Thorp.*

28 January 1852.

THOMAS THORP who had been sent to the Admiralty by his present employer, Mr. Glover, on being examined by the Comptroller of Victualling and the solicitor, states that he was in Mr. Goldner's employment as preserver at Galatz for five or six years, and left in 1850. Goldner treated him very ill, and did not pay his wages until he appealed to the consul at Galatz in 1850; Goldner gave very low wages. Was engaged by Mr. Blogg, and on going to Galatz saw large quantities of meat which had become bad and were thrown into the Danube. On his first going there, there were four Englishmen employed; after Blogg's death he was the only one left; Blogg, Emanuel, and Samuels were the parties who agreed with him. The vice-consul at Galatz and Goldner were enemies; his duty was to receive the canisters after being closed, and to place them in a vat, at a temperature

a temperature of 260°. Does not believe that improper substances have been found in the canisters; but if so, Goldner was not to blame, as he did not know of it, and the workmen must have put it in when he was absent, and abstracted the good meat for their own use. Thorp also states that though paid by Goldner he was not employed or in any way connected with the preserving from 1849. From Goldner's paying them so badly, the workmen were very ill off, especially in winter, and always exceedingly dissatisfied. The Englishmen returned to England; the men employed were principally Russian Jews. Goldner could not be ruined as he never had anything to lose; believes that Goldner has still an interest in Ritchie's business. Goldner is a native of Pesth, a Jew by birth, though not by profession, and an excellent linguist. He has heard that Goldner rendered himself amenable to the laws. Further states, that there was no occasion for opening the canisters, as any one acquainted with it can tell what is bad without doing so. Mr. Goldner put up the best meat, no others put up such good meat; the cattle were mostly Hungarian, and were the same size and as fine as any in Smithfield; they cost from 3*l.* to 3*l.* 10*s.* per pair; the tallow and hides were worth all the money, so that the meat might be sent home for nothing. Mr. Cunningham, vice-consul at Galatz, could give information. App. No. 2.

Thos. T. Grant,
Comptroller of Victualling.

Appendix, No. 3.

PAPERS delivered in by Captain *Milne*.

SALT MEAT. App. No. 3.

23 October 1846.

In forwarding the appropriation of the deliveries of Irish salt meat under the last month's contract to the several victualling yards, call the particular attention of the receiving officers (through the superintendents) to a most strict and rigid examination of all the salt meat that may be tendered for reception under the existing contracts, taking care that the meat so tendered for inspection is of unexceptionable quality; that it is all well cured, of the regular weight, and properly messed, and packed in good, sound, and substantial casks. Their attention is to be particularly given to all these points, as frequent complaints have been lately made by the Commissaries abroad, through the Treasury, of the salt meat sent out for army services having been found on examination to be unusually short of weight, and improperly messed, as well as shrinking when boiled, more than was the case formerly. 15/5276. 15/5275.

The

App. No. 3.

The attention of the officers should also be given to such packages of salt meat as may have the appearance of having been re-packed, and they are to be vigilant in the examination of such description of meat, and satisfy themselves by all practicable means that the meat tendered for delivery is meat cured in the United Kingdom; it having been represented to their Lordships, on very good authority, that parcels of American cured salt meat were tendered, and passed for Irish cured meat under the contracts of last year.

State that, with regard to the article of salt pork, it is understood that American cured pork is generally of a very fat description, much more so than Irish cured pork.

State, lastly, that their attention should also be given to the deliveries of salt meat as may be branded "Cork," it being understood that salt meat at that place, or in the vicinity, though it looks well, is generally of an inferior description, and more liable to lose weight, than the meat cured in the West of Ireland.

Write accordingly to the Captains-superintendents at Deptford, the Royal William, the Royal Clarence, and the agent at Haulbowline.

Acquaint the contractors for Irish salt meat that strict orders have been given to the several establishments to enforce a very rigid examination of all the salt meat that may be tendered by them for delivery; and that unless the meat sent in for examination is in conformity with the conditions of their contract it will be rejected, and a heavy mulct imposed by their Lordships in the event of its being discovered that any other than meat of the cure of the United Kingdom is offered in fulfilment of their engagements, and that their Lordships expect the deliveries under their contracts will be made in the periods prescribed, as no extension of time will be granted.

(signed) *J. M.*

Approved, *J. H.*

Extract of a Memorandum of the late Comptroller of the Victualling, dated 29 July 1846, submitted by him to the Board of Admiralty.

Before deciding on the description of salt beef to be provided, it may be proper to bring under their Lordships' notice the circumstance of 80 tierces of American cured salt beef having been ordered to be provided on the 10th October last, by way of experiment, and sent to Malta, Jamaica, and Sierra Leone, with directions for its being returned at the end of 12 months to Deptford. This meat was purchased at the rate of 4 *l.* 16 *s.* per tierce, and the Deptford officers were required to report upon its quality as compared with salt beef of Irish cure.

As it appeared by their report that this "experimental American salt beef was equal to the Irish salt beef received under the contracts entered into on the 26th September last," their Lordships were pleased on the 16th June last to authorise the acceptance of an offer of a further quantity of 1,000 tierces of American salt beef at the rate of 4 *l.* 16 *s.* per tierce, while the average price of the contracts for

for Irish beef entered into in September last was 6 *l.* 8 *s.* 9 *d.* per tierce, being a difference of 1 *l.* 12 *s.* 9 *d.* per tierce.

Under these circumstances, it is for their Lordships to decide whether any of the salt beef now proposed to be contracted for shall be American cured beef; and if so, what portion of it shall be of that description. Of late years it has been usual to advertise for salt meat, the cure of the "United Kingdom," which afforded an opportunity for parties in England and Scotland to tender; but no tenders were ever received from them, and Irish meat alone was taken.

If American salt beef is to be admissible on the present occasion, it will be for their Lordships further to consider the terms in which the advertisements shall be modified, and whether it shall be by public contract or by private bargain. As a general rule, there can be no doubt that purchases by public tender ought not to be departed from; but in the article of American salt beef, it may, perhaps, under the following circumstances, be considered more advisable to obtain the quantity that may be decided on, by private negociation in preference. Since the alteration in the tariff, American salt meat has become an article of great import into this country, but the pork shrinks so much in boiling as not to be held in estimation. Much of the beef, however, is of a quality not inferior to the best Irish cured meat. There is, at the same time, a much larger quantity imported that is deep coloured and hard, and of a very inferior quality; so much so, as not to be fit for use in the navy. It is this beef of inferior quality that would form an almost insurmountable obstacle to purchasing by public tender; because, with all the precautions that could be taken, there would, from the number of speculative persons who would tender, be the greatest possible risk of disappointment, as well in the delivery within the prescribed time, as in the quality of the meat tendered for reception, and in the impossibility of replacing it in due time.

Under all circumstances, therefore, it would seem to be the most advisable course to agree by private contract, either with the house from whom the late purchase of 1,000 tierces was lately made, or some other house of equal respectability, if there be any, who have turned their attention to the trade, and are known to have taken pains to procure meat of the best quality.

Of the American beef imported into this country, that from the Ohio, Arkansas, &c., which comes through New Orleans, is generally of inferior quality, while that from the States on the shores of the Atlantic is, on the contrary, of excellent quality, particularly that imported from Baltimore. The meat cured at the latter place is generally from store cattle driven across the Allegany Mountains, and fattened in the rich pastures on the coast.

The importation of American salt beef between the 1st of January last, and the 18th instant, has been into London 17,000, and into Liverpool 23,000 tierces, making a total of 40,000 tierces; while the quantity imported from Ireland into London and Liverpool for the merchant service, has been generally considered as not exceeding 20,000 or 22,000 tierces per annum.

Since the alteration in the tariff, the curing of salt meat in Hambro' is said to have nearly ceased.

Although

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Although the American pork is not held in high estimation, it is said to be improving in quality, and it may therefore, perhaps, be considered advisable, with a view of diminishing the price at which Irish pork will be offered, to advertize for 500 or 1,000 tierces, as an experiment, of such as may be of an unexceptionable quality, and equal in all respects to pork of Irish cure.

(signed) *James Meek.*

EXTRACT of a MEMORANDUM of the late Comptroller of the Victualling, dated the 29th July 1847, submitted by him to the BOARD of ADMIRALTY.

BEFORE deciding on the description of salt meat to be provided for, it may be proper to state,

That the average contract prices of last year for Irish cured meat were,

	£.	s.	d.	
For salt beef - - -	7	2	3 3/5	per tierce.
For salt pork - - -	7	14	2	„

and the following foreign cured salt meat was purchased, viz.:

	Tierces.		£.	s.	d.	
American { beef,	2,000	at - -	5	5	–	per tierce.
American { pork,	30	„ - -	5	10	–	„
Archangel beef,	30	„ - -	6	–	–	„
Hambro' pork,	30	„ - -	6	19	3	„

Previous reports on the quality of American beef were so satisfactory, as to have induced the purchase of 2,000 tierces last year; and a report has been received from Commander Murray of the "Favorite," stating,

"That the American beef was superior to any that he had ever seen issued to a ship's company, and that it was of a fine quality, and lost very little in boiling."

"That the Archangel beef was comparatively inferior, and although but a short time packed, was so strongly impregnated with salt, that the inferiority would be much greater in 12 months; in addition to which, it was of a very coarse quality, and remarkably lean."

"That the Hambro' pork was certainly not in any degree better than the usual ship's pork, being of an oily, spongy nature, and losing rather more in boiling than the other."

A further report has been received from Captain Wilmot, of the "Spartan," stating,

"That the ship's company, after a fair and impartial trial of seven days, considered the Archangel beef and Hambro' pork to be fully equal to Irish beef and pork, and held them, if any thing, in higher estimation; that both the beef and pork were exceedingly well tasted, and fresh in every way, and that the pieces preserved their full weight after the usual process of boiling had been accomplished; but that they did not consider that they would keep so well as the Irish

Irish beef and pork, from a want of sufficient solidity and substance to enable them to stand the test of age and climate." App. No. 3.

No report has yet been received on the quality of the American pork purchased for experiment, except that it was considered at Deptford, when received, to be of a superior quality.

Further reports have recently been received from Captain Graves, of the "Volage," and from Commander Tryon, of the "Mutine."

The former states, "That the Archangel beef, and Hambro' pork, are liked by the ship's company much better than the Irish cured meat, being of a fine flavour, and not shrinking so much in boiling; but doubts existed as to their keeping so well."

And the latter states, "That the ship's company considered the Archangel beef to be equal in flavour, and less bone, and less loss in boiling, than Irish cured meat; and the Hambro' pork equal, in every respect, to that of Irish cure."

The subject of a portion of the supply of salt meat required, being provided of that of foreign cure, was brought under their Lordships' notice last year, in a report of which an extract is inclosed; when it was decided that, with the exception of 2,000 tierces of American beef, the advertisement for the salt meat required should be for that of the cure of the United Kingdom, in the usual manner.

In case their Lordships should decide that any portion of the salt meat to be contracted for shall be of foreign cure, some modification of the conditions of contract will become necessary, as pointed out in the extract above-mentioned.

(signed) *James Meek.*

Appendix, No. 4.

COPY of a LETTER from *S. S. Ritchie*, Esq., dated 29 October 1850. App. No. 4.

137, Houndsditch,
29 Oct. 1850.

Sir,

I HAVE the honour to acknowledge the receipt of your letters to Mr. Goldner, of June 3d, July 3d, August 5th, September 4th, ult., and October 4th instant, transmitting him reports of survey on various condemnations of preserved meats, and calling upon him to state such reasons as he may have to offer why the same should not be made good by him to the Lords Commissioners of the Admiralty.

As Mr. Goldner's agent, I now beg to return the reports of survey, and other enclosures of your letters. I must apologize for so long delaying to reply to them; but I deemed it prudent, before so doing, first to communicate in writing with him, and afterwards, regarding the whole affair as a matter of great public importance, I determined on going out to Galatz to consult him on the subject, and also to

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investigate thoroughly for myself into the nature of the operations carried on there, and more especially with the view of ascertaining, if possible, how it has occurred that some of the canisters have been improperly filled.

In the first place I have to observe that there has been delivered, under the terms and conditions of the contract of December 1844, only about 75,000 lbs. of meat, principally in 1 lb. and 2 lb. canisters, of which the number of condemnations have been very trifling; the great bulk is for meats supplied in large canisters not under that contract, but according to orders given to Mr. Goldner from time to time, and in proof of which I have only to refer you to the various certificates of the officers as to the right delivery of the goods, in which the word "contract" is expunged, and the word "order" substituted, and therefore he is not legally liable to make good these condemnations.

But Mr. Goldner has no desire to shrink from the responsibility under any such plea as this; and I simply state it, in order to show the fairness and liberality with which he wishes to meet the subject on his part, trusting that a similar feeling will be displayed towards him on the part of the Government.

The reports themselves require a searching investigation, they include condemnations of preserved meats supplied before ever Mr. Goldner came to England, others before the date of the contract entered into by Mr. Goldner under which these claims are made; others both before and during the existence of Mr. Goldner's contract, supplied by persons who have been infringing his patent; they also include cases in which the cause of condemnation has arisen from circumstances over which Mr. Goldner could have no possible control, viz., bad packing, bad stowage, damage by exposure to salt water, &c. &c. &c. Under these circumstances, I have respectfully to request that some person or persons may be appointed to examine with me into the nature of each report, in order that a fair and just conclusion may be arrived at.

I have classed the causes of condemnation under four heads, which I respectfully submit to the consideration of their Lordships as the basis on which this investigation should be conducted, while it affords me the means of explaining fully to their Lordships the cause of so much of the meat being found bad.

1st. The cases where the meat has been found bad from defective preserving.

2d. Where this result has arisen from defective canisters.

3d. Where the cause of condemnation is not stated at all.

4th. Where the canisters, though good, have contained some foreign and offensive substance.

1. Under the first head must be included not only all those canisters which are stated to have been bad from bad preserving, but also those that have burst from the accumulation of gases in the canisters arising from the same cause; all these Mr. Goldner will immediately make good.

2. Under the second head, their Lordships, by their letter of 24th April, have already sanctioned the principle that Mr. Goldner should not

not be held responsible for broken or defective canisters, inasmuch as they could not have been received from him in that condition; so therefore he cannot be accountable for damage done to them after they have left his possession.

There can be no doubt that these defects and injuries have resulted from the mal-treatment the canisters have received at the hands of persons who were ignorant of the delicate and fragile nature of the article; indeed one report states that when the canisters were unpacked from the casks they were thrown into the hold of the vessel, and when taken therefrom were, as might have been expected, found broken. Such is, no doubt, frequently the case where it happens that the package in which the canisters are placed is found inconvenient for stowage, or where they are unpacked from any other cause. Surely Mr. Goldner cannot be held responsible for these losses. Hereinafter I have taken the liberty of suggesting a mode by which in future this can be avoided.

3. Under the third head, it is difficult to suggest any fairer way of meeting the justice of the case than that, after separating these from the other complaints, to distribute them in the same proportion as Mr. Goldner's liability may be ascertained in regard to those where the cause of condemnation is stated.

4. I now come to speak of those cases which, though very few in point of number, have, from the effect produced, caused so much dissatisfaction against Mr. Goldner in the minds of their Lordships. I allude of course to those canisters in which there has been found offensive and disgusting substances, generally supposed to be the offal filled with excrement, but which is, in fact, as I have already before stated to you, a portion of the weasand containing the undigested food of the animal, which lies in the neck, and from its similarity to the flesh around, may easily escape observation. I can point with satisfaction to the last of the reports that have been received, that of the "Arethusa," dated 26th September, as at least corroborating this my former assertion.

I have before mentioned that one of the chief objects that induced me to go out to Galatz was to investigate into the origin of this disaster. I found it to have resulted partly from a malicious conspiracy against Mr. Goldner, and partly from wanton neglect on the part of those to whom he had of necessity been compelled to entrust his interests. It will not be denied that he is responsible for the acts of his servants, and most deeply does he deplore that so great an injury should have been inflicted on him; but he confidently trusts that, by a full and free explanation of the difficulties he has had to surmount, in the carrying out of his vast undertaking on the one hand, and the great and beneficial objects achieved by him on the other, that their Lordships will be inclined to look more favourably upon him. I am in great hopes that nearly all the canisters in which this weasand has been left have now been used; but should such not be the case, in order to prevent any further prejudice arising against the meats on that account, I would suggest that a circular be issued at his expense narrating the facts, and ordering that the meat should be taken from the canisters before being issued to the men, or before being warmed up, as is sometimes the case, and all the canisters so found after such

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survey to be thrown away and charged to him. This would prevent any of the meat in this offensive state being issued as food to the men.

Before deciding as to whether Mr. Goldner should altogether lose the confidence of the Lords Commissioners of the Admiralty, I would beg it to be remembered that, previous to his undertaking, the use of preserved meats in Her Majesty's navy was confined to medical comforts; that their consumption was limited to about 20,000 lbs. to 30,000 lbs. annually, and that when he commenced his connexion with the Government there remained on hand upwards of two years' supplies, quite worthless, owing to the bad quality of the article; and that since that period there has been delivered by Mr. Goldner upwards of 2,000,000 lbs. of meat, out of which there has been found a quantity, including condemnations from all causes whatsoever, about 40,000 lbs. or about 2 to 2 ½ per cent. Now I would respectfully ask, if there is any article of general consumption in Her Majesty's navy where the condemnations do not amount to a similar per centage; and be it remembered, at the same time, that you have here an article, the method of preparing which was utterly unknown 10 years ago. Moreover, these reports have been accumulating during a period of upwards of six years, and they are now all brought forward at once. Had he been made aware from time to time of the existence of these complaints, at least he would have increased his vigilance and exerted his ingenuity to have prevented their recurrence; but hearing nothing of them, he could only suppose that his manufacture was approved. I think their Lordships will see that he is entitled to great consideration on this ground alone.

These remarks especially have reference to the condemnations that will be found under the second head, viz., the broken canisters. I have already expressed my belief how these breakages have arisen, and I can adduce the strongest possible proof in corroboration thereof. There has been delivered from this factory in Houndsditch, for the consumption of the mercantile marine, during the last 10 years, five times the number of canisters that have been delivered into Her Majesty's stores; they are made of the same material, on the same principle, and similar in every respect, and there has not been received from all quarters of the globe taken together, condemnations of 100 canisters from this cause, and all the books, letters, and documents are open for the inspection of their Lordships to ascertain the correctness of this assertion. I attribute this entirely to the fact that the canisters are delivered packed by persons who thoroughly understand the delicate nature of the article they have to deal with, and to their not being removed from the package until required for consumption. Now I would respectfully suggest that the same course be in future adopted in the navy; let the contractor, whoever he may be, deliver his canisters packed, and in such packages as the canisters may remain until wanted for use. I will undertake, on the part of Mr. Goldner, to deliver all the meats contracted for by him in May last, packed in casks of any size their Lordships may wish, at an additional charge of one-eighth of a penny per lb. of meat, or in boxes at an expense of ¼ *d.* per lb.

In transmitting the canisters from Galatz to this country we find the latter mode preferable, on account of the great saving in the stowage;

age; and I have no doubt, if their Lordships will adopt the suggestion, that the object might be effected at even a less cost than this, by having some strong boxes constructed that might, when empty, be taken to pieces and brought home for use again.

In accordance with your orders, I am now shipping to Gosport and Plymouth 175,000 lbs. of meats, which I am packing in casks, as it would be unsafe to send them even that short voyage unpacked, and I respectfully request that their Lordships may sanction the receipt of the same in this manner.

I have above partially alluded to the difficulties Mr. Goldner has had to encounter in bringing his undertaking to the point he has; they consist of various kinds, political, financial, and local. Their Lordships are already aware of the correspondence that has taken place between himself and and the Moldavian government on the subject of duties; this is but one of the many negotiations he has had with that government. He has also to encounter the most determined ill-will on the part of Mr. Charles Cunningham, Her Majesty's vice-consul at Galatz, who exercises the most despotic authority over him as a British subject; but on this I will say no more, as it is Mr. Goldner's determination, on his return to this country in the winter, to bring the subject under the consideration of Her Majesty's Government; I merely mention it to show how much his time is occupied by matters extraneous to his business. Of his financial difficulties it is difficult to speak, without trenching on matters altogether of a private nature, and in which their Lordships would perhaps be little interested; suffice it to say, that I know them to have been such as would altogether have crushed a man of ordinary mind and intellect, which can be borne out by the testimony of several eminent merchants and bankers of the City of London. It is matter of history that in the commercial panic of 1847 the whole commerce of Galatz was prostrated, and that only three mercantile houses were able to stand their ground, and of those three Mr. Goldner's was one.

But his chief difficulties are of a local nature. The labouring population of the place is composed of men of the lowest possible grade, being a mixture of Moldavians, Gipsies, Jews, and Greeks; men who, owing to the long and abject slavery in which they have been held up to a very recent period, are naturally cunning, deceitful, and vicious, possessed of no principle or feeling whatever. It is the labour of these men that Mr. Goldner is compelled to employ, and it is only by the exercise of the utmost vigilance and watchfulness over them that the work can be carried on; he has tried the experiment of employing Englishmen for the purpose, but without success, for soon discovering their superiority over those around them, they become too independent to be managed at all. Until this year, Mr. Goldner was continually absent from his factory, engaged in procuring the cattle in Upper Moldavia and Wallachia, some 200 or 300 miles distant; and having been unfortunately deprived of the services of his nephew by sudden death, he was obliged to entrust the management of his factory during his absence to a person who has proved himself utterly unworthy of the trust reposed in him, although at the time Mr. Goldner placed the fullest confidence in his integrity and judgment. It is owing to the neglect of duty on the

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part of this man, that I attribute, in a great measure, the existence in the canisters of the offensive substances before alluded to. From the moment, however, that the mischief was discovered, the utmost possible precaution has been taken to avoid its recurrence. By the employment of agents for purchasing the cattle, Mr. Goldner is now enabled to devote his undivided attention and energies to the internal arrangements of the factory; he resides upon the spot, and all the detail is carried on under his own inspection. The result is, as I have much satisfaction in stating, that I found the canisters put up this year in much better condition in every respect than at any previous period.

Having thus briefly glanced at the difficulties which beset Mr. Goldner, suffer me to call attention to what has been achieved by him.

At the present time, the seamen are being supplied with a meal of fresh beef, of the very best quality, at even at a less cost than salt meat, when allowance is made for waste in cooking and the bone. Thus, by his perseverance and exertions, what was once regarded as a luxury, and necessarily confined to the few, has now become an article of food, attainable at a cost which brings it within the reach of all.

On a previous occasion, I stated as an opinion what, from recent personal experience, I can now with confidence repeat: that an article of equal quality to that preserved in Galatz could not be put up in this country under 7 ½ *d.* per lb., a cost too great to allow of its being used on an extensive scale.

You are already aware of the failure that has attended the first attempt of parties in this country to manufacture preserved meat at a higher price than that of Mr. Goldner's contract, and I am sure that every attempt honestly made to compete with the Moldavian meat will be equally unsuccessful, for this obvious reason: the cost of a bullock out there is just one-fourth of that of an English or Scotch heifer of equal size and quality, while the expense of freight, insurance, &c., to this country, does not exceed one penny per pound of meat preserved.

It only remains for me, in conclusion, to say that, notwithstanding all the labour, talent, and industry bestowed upon this great object, Mr. Goldner has not, up to the present time, reaped one penny benefit to himself, on the contrary, he has lost upwards of 10,000 *l.* in carrying it out; but, notwithstanding this, he still looks forward with confidence to the time when it will prove remunerative to him and others who have assisted him, provided only their Lordships will kindly sympathise with him under his present, or rather recent, difficult position, and restore to him that confidence which he cannot but feel has been forfeited by no fault of his own. Waiting their Lordships' reply,

I have, &c.
(signed) *Sam. S. Ritchie.*

Jas. Meek, Esq.,
Comptroller of Victualling.

Appendix, No. 5.

PAPERS delivered in by *T. T. Grant*, Esq.

RETURN of the Total Quantities and Value of each Description of BEEF and PORK Contracted for during the Years 1848, 1849, 1850, and 1851.

SALT BEEF.					SALT PORK.			
YEAR.	Quantities Contracted for.	Description of Meat.	Value at the Contract Prices stated in the Admiralty Return of 12 February 1852.	Average Prices of each description of Meat.	Quantities Contracted for.	Description of Meat.	Value at the Contract Prices stated in the Admiralty Return of 12 February 1852.	Average Prices of each description of Meat.
			£. s. d.	£. s. d.			£. s. d.	£. s. d.
1848	5,400 tierces	United Kingdom	34,175 – –	6 6 7 tierce	11,000 tierces	United Kingdom	80,325 16 8	7 6 – tierce.
	600 „	Hamburgh	3,690 – –	6 3 – „	1,000 „	Hamburgh	7,200 – –	7 4 – „
1849	„ „	„	„	„	4,100 „	United Kingdom	23,226 13 4	5 13 3 tierce.
	„ „	„	„	„	300 „	Dantzic	1,612 10 –	5 7 6 „
	„ „	„	„	„	100 s. casks of 100 lbs. each.	„	592 – –	1 17 – cask.
	„ „	„	„	„	1,500 tierces	Hamburgh	7,987 10 –	5 6 6 tierce.
1850	„ „	„	„	„	1,950 tierces	United Kingdom	10,128 6 8	5 3 10 „
	„ „	„	„	„	2,000 „	Hamburgh	10,000 – –	5 – – „
	„ „	„	„	„	30 casks of 100 lbs. each.	„	151 4 –	1 11 6 cask.
	„ „	„	„	„	1,000 tierces	Dantzic	5,125 – –	5 2 6 tierce.
	„ „	„	„	„	600 „	French	2,790 – –	4 13 – „
1851, Feb.	640 tierces	United Kingdom	3,476 13 4	5 8 7 tierce	1,500 tierces	United Kingdom	9,727 10 –	6 9 8 „
	800 „	American	3,973 6 8	4 19 4 „	400 „	Dantzic	2,455 – –	6 2 9 „
	600 „	Hamburgh	3,210 – –	5 7 – „	3,900 „	Hamburgh	25,090 – –	6 8 8 „
	„ „	„	„	„	100 casks of 100 lbs. each.	„	632 – –	1 19 6 cask.
1851, Sept.	3,900 tierces	United Kingdom	19,540 – –	5 – 2 tierce	6,400 tierces	United Kingdom	36,170 16 8	5 13 – tierce.
	2,580 barrels	„	8,957 19 2	3 9 5 barrel	3,300 barrels	„	12,203 19 2	3 13 11 barrel.
	2,700 tierces	American	13,322 10 –	4 18 8 tierce	3,000 tierces	Hamburgh	16,938 15 –	5 12 11 „
	1,700 barrels	„	5,845 – –	3 8 9 barrel	1,500 barrels	„	5,612 10 –	3 14 10 „
	„ „	„	„	„	900 tierces	Prussian	4,882 10 –	5 8 6 tierce.
	„ „	„	„	„	450 barrels	„	1,530 – –	3 8 – barrel.
	„ „	„	„	„	450 „	French	1,575 – –	3 10 – „

22 March 1852.

Thos. T. Grant.

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137, Houndsditch, London,
Sir, 21 February 1851.

As I am again honoured with the contract for the supply of the preserved meats for Her Majesty's Navy, I am most anxious to carry on the manufacture of the same with the greatest possible care, so that the meat should give the same satisfaction as it did when first introduced. During the last two or three years, in addition to the difficulties which surround me in such a country as Moldavia, where industry is totally unknown, I have had additional obstacles thrown in my way from the very source where I should have received assistance and support, such as my circumstances entitled me to.

I established in 1844 a factory at Galatz for the purpose of preserving meat, melting tallow, &c., &c. I entered into an engagement with the Moldavian Government to pay them a fixed sum per head of cattle killed, and agreed that all articles necessary for the manufacture, as well as the produce of the cattle, should be exempt from all duties. For some time that arrangement went on, strictly observed by both parties, but afterwards Her Majesty's Vice-consul, Mr. C. Cunningham, declared that arrangement to be illegal, and the Moldavian Government began to levy duties, in addition to that above stated, upon all articles which were exempt under that agreement. After having tried for several years unsuccessfully to arrange the matter, I was obliged to bring it before their Lordships' notice, and their Lordships having referred the case to the notice of Her Majesty's Secretary for Foreign Affairs, who having again recommended the case to his Excellency Sir Stratford Canning, that authority interfered in my behalf, and I succeeded in coming to an amicable arrangement with the Moldavian Government; and although I submitted to great sacrifices, and consented to receive back only a portion of the money which I was unjustly compelled to pay for several years, I did it with a view to put an end to litigation, and to smooth the matter for future operations. But Mr. Vice-consul Cunningham, for some motive or another, did not cease to put as many difficulties in my way as he possibly could; he not only deprived me of the assistance I was entitled to from that office, but most arbitrarily proceeded against my factory, so that I was again compelled to lay a complaint against him before his Excellency Sir Stratford Canning. But it seems that his Excellency has received notice that my contract with the Admiralty was at an end, and I was directed by him to bring my complaint through Her Majesty's Consul at Jassy, which I did, but up to the present time I have received no communication on the subject.

I therefore beg that their Lordships will again recommend to the proper department that my complaint against the Vice-consul at Galatz should be noticed, and that I should receive such redress as I may be justly entitled to.

At present, in consequence of the conduct of that functionary towards me, I have very little control over my workmen, and am scarcely master of my own establishment; in fact, I have been obliged to send back to this country all my English workmen, and the amount of damage I have sustained in consequence of the proceedings

ings of the Vice-consul, is such as, were I to state it, it would appear almost incredible; nevertheless, I assure their Lordships that it is enormous. The greatest part of my time has been taken up in these disputes, which ought to have been devoted to the watching over the manufacture of the meat; and if I receive no remedy, I am convinced sooner or later my establishment must be given up, the result of which would be an enormous loss to me.

I have, &c.
(signed) *S. Goldner.*

Thos. T. Grant, Esq.
Comptroller of Victualling.

Sir, Galatz, 9 June 1851.

I HAVE the honour to acknowledge the receipt of your two communications of the 21st ultimo, the one acquainting me that the Lords Commissioners of the Admiralty had come to the determination of replacing the quantities of meat, the subject of condemnations, by purchasing of other parties and charging me with the expense; and the other, being a notice to determine the contract of 29th January last between myself and their Lordships. They convey to me the painful information of my being condemned, as persons in their absence generally are.

Now I take the liberty, like all delinquents when condemned without the opportunity of defending themselves, to enter into such particulars as the state of the case will admit of my doing, not having all the papers before me.

In 1840 I took out a patent for improvements in preserving animal and vegetable substances in vacuum. I submitted samples of meat preserved under this process to Her Majesty's Lords Commissioners of the Admiralty, which samples attracted their attention, and I was permitted to furnish a small supply on trial; and as a proof that their Lordships were satisfied with the improvement thus made, I soon afterwards was favoured with a large order for preserved meats and vegetables (in canisters of such sizes as had never been used before) for the use of the Niger Expedition, the result of which, even in the very trying climate to which they were exposed, was most satisfactory. I subsequently received several small orders from their Lordships for the use of the Navy, as also from the Lords of the Treasury for the use of the Army; these supplies also turned out very satisfactory. I must observe that, up to 1844, their Lordships had been in the habit of contracting for a small supply of soup and bouilli (boiled meat and concentrated gravy). At that time I made a proposal to their Lordships, and submitted samples, that contracts should be entered into for stewed beef or boiled beef, boiled mutton or poultry, and different kinds of vegetables, so that the contractor should know what he was contracting for, as the articles before contracted for (it is true the only ones capable of being preserved by the old process), though very suitable for an emergency, were not adapted for ordinary diet. This plan was adopted, and contracts were advertised for, my provisions being exhibited as specimens of what were to be supplied. The contract was taken by manufacturers under the old process; and they having failed in their deliveries to give their Lordships satisfaction, I

was

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was called upon to undertake the contract for the whole supplies, with a clause in it giving the power to either party of determining the same within three months.

About the year 1846 I was further called upon to state whether I could deliver preserved meat on a larger scale, and shortly afterwards received an order for 800,000 lbs. of meat. This I supplied, and so continued to furnish all the supplies required for Her Majesty's Navy.

About the year 1849, their Lordships acquainted me with the fact of their having received complaints respecting the preserved meats, and I was furnished with a list of the quantities and grounds of complaint, which quantity then amounted to about 20,000 lbs., but which I am now informed extends to about 60,000 lbs. Now as far as these condemnations are concerned, I do not see any great harm, or view them as greater than the usual casualties of a newly-introduced article, as (speaking without having the exact data before me here) the quantity supplied must exceed 3,000,000 lbs. of meat, on which the condemnations would only average about two per cent. With reference to the quality of the meat, it was the same quality as supplied all along. With respect to the offal complained of, I have already had the honour, on a former occasion, to state that such was put into the canisters without my knowledge, and under circumstances beyond my control, but on a very limited scale.

About that time their Lordships determined on offering the supply of preserved meat to public competition, and the result was that I obtained the contract for half the quantity advertised for. Their Lordships, no doubt, must have been convinced that my process was the only practical one for preserving meat fit for use, and attributed these complaints to their natural causes, and have seen that there were prejudices, averse interests, and influences to contend with, and that the article was scarcely judiciously treated either in the shipment, packing, or cooking, otherwise they would not have honoured me with the new contract of 1851 for 800,000 lbs., to the exclusion of public competition.

Now the present legal cause assigned for their Lordships' decision is, that offal has been again found in the canisters supplied under the new contract, while I can assure their Lordships that no offal was put into the canisters. It is true that the tongue of every animal slaughtered was included with the rest of the carcase, but I have rather done this with the view not to deprive the consumer of a good part of the meat, as I could have realized a better price by selling them separately; but my idea of offal was, and is, that it means an inferior part of the animal to the meat, and not a superior part. When in England, and everywhere else, I have seen the tongue introduced as a choice morsel on the dinner table. Had I dreamt that the tongue was technically called offal, I certainly would not have given it instead of meat; here turns out an evil out of a virtue.

Now I am informed their Lordships intend purchasing preserved meat from other parties, and charging me with the difference in price. I have no doubt in that case their Lordships will return to the same sources from which they have withdrawn, and given me the preference. If their Lordships will refer to about the years 1841-2, just when I entered

entered the field with my patent process, they will find that no less than half the quantity of preserved meat, manufactured under the old process and supplied for Her Majesty's Navy, was sold at Deptford for a trifle as totally unfit for use; and, as I have before remarked, the complaints of supplies from me amount only to two or three per cent. on the quantity furnished. If their Lordships ever expect to obtain preserved meats not fully cooked, I must say that such expectations can never be realized, for the reason hereafter assigned; all their Lordships will ever obtain is preserved meat fully cooked, and with its natural flavour if preserved in vacuum; any other process than this is not practicable on a large scale. There are, without doubt, many things very nice preserved under the old system, such as sardines, salmon, and several articles of food, where the peculiar flavour imparted by the free oxygen of the atmospheric air combined with those substances is rather an improvement, or at all events not objectionable; but for meat as daily food it never did and never will answer. Whatever scientific or competitory information their Lordships may have gathered will not effectually contradict this statement.

For the last 12 years, my time and attention has been constantly devoted to this branch of business. I am thoroughly acquainted with the practical, as well as the theoretical part of it, and I am willing to give their Lordships the fullest information and details, as I have hitherto done.

With respect to the evil done up to the present moment, their Lordships, as practical men, must be perfectly well aware that no new undertaking has ever (or but rarely) succeeded, without meeting with some disaster during its infancy, and a great many things that might have proved valuable are lost for want of perseverance. Supposing their Lordships had tried the experiment of introducing preserved meat for the use of the Navy, and had not had my establishment abroad at their disposal, most surely they would have had to pay very different prices for it than those at which I supplied them. I beg their Lordships to refer to the prices Her Majesty's Government were paying for preserved articles previous to my appearance; it will be found as high as 2*s*. 6 *d*. per lb., and at the lowest 11 *d*. per lb. for soup and bouilli, a mess composed of things unknown; whereas, if only a saving of from 1 *d*. to 2 *d*. per lb. had resulted from the supplies received from me on the aggregate quantity I have furnished, the difference would amount to upwards of 40,000 *l*.

Now I am threatened to be charged with some meat which their Lordships intend purchasing, which is not further proved than that it might be dearer. Surely, I am rather entitled to a remuneration from their Lordships for what I have done, than merit punishment.

Their Lordships take up a legal position on the technical terms of the contract, and call tongues offal, and upon that ground serve me with a notice to determine it. I did not so act, when, in 1844, their Lordships committed a breach of the then contract by receiving supplies from other parties, which, according to the tenor of the same, they were not entitled to do before its termination.

With respect to the reports which were made by the officers of the unfortunately unsuccessful Arctic expedition, the result of the examination

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mination of the goods on their return home, so far from justifying them, proved quite the contrary; the weights were found accurate and the quality good, both of which were in those reports complained of. Why was I then deprived of my rights? I cannot therefore see why I am deserving of being so harshly treated by their Lordships.

I have every hope of being able to maintain my patent rights for the few years yet to come, and of preventing the use of preserved provisions manufactured under my process by other parties.

Their Lordships, after the complaints that have been received, would have done well in exercising the very judicious remedy in their hands, that of sending a person for the purpose of inspecting the meat as put into the canisters, I having given notice of the time when I intended commencing to manufacture. Such a person would have stopped all the evil that has arisen, although I do not believe he would have thought of proposing to leave out of the canisters the good tongue; he would certainly have ascertained the quality of the meat and the whole manipulation, and their Lordships would thus have the means of becoming more practically acquainted with a branch of business which has not yet arrived at the great use to which it will one day be applied. If the person so sent out had seen that the meat was unfit for Her Majesty's service, he would have stopped the manufacturing at once.

With respect to the manufacturers having been bound down to supply the meat in canisters of a certain weight, I could not succeed in obtaining this result by filling them with raw meat; I was therefore under the necessity of scalding the meat, so as to get more into them, which will account for the meat being more done, though the quality is not rendered worse; the juices still remain in the canister.

It is not here, as in England, that I can produce tin plates of the size necessary for the purpose; I was consequently compelled to use the plates already on the spot.

I have already stated, that meat, to be properly preserved, must be fully cooked to expel the atmospheric air from its fibres, which are liable to retain air; but little improvements can still be made. For instance, such as cooling the canisters immediately they are preserved, to stop the boiling process, which continues even when removed from the heat; the provisions being in a vacuum, the boiling continues with a much lower temperature; and it also depends very much on the tin plates, whether they are perfectly tinned over, as even in vacuum a galvanic action is going on, and if the plates are not perfectly tinned over to a certain thickness, the inside of the canister will turn dark, and the edges where cut turn black, not being tinned at all. This action is perfectly innoxious, but persons unacquainted with the cause, might easily imagine it to arise from the presence of some injurious substance. If preserved meats are to be used on a large scale, it will be necessary that the manufacturer should tin over all parts of the canister, or after it has been cut and stamped. All these improvements are very expensive, and till at present neither was everything sufficiently practicably tested, nor would it have paid to establish such expensive machinery on the rate of business done. I can assure their Lordships that, during the seven years I have carried on the manufacturing

manufacturing here, it has not paid its expenses; but I always hoped that the business would become a large one, so as to make it remunerative.

I have never used (nor was it in my power to do so), any influence to obtain the supplies for Government; it was entirely the superiority of my process of preserving which carried me through; I am far from being able to boast of this as a fortunate circumstance, as it has placed me in the present dilemma.

In 1841, when I established a factory in London, the sale of preserved meats was a perfect impossibility; the reputation of that branch of trade was such, that neither in the mercantile nor in the Royal Marine, would any body believe that it was fit for food. I was therefore obliged to manufacture for a period of nearly two years, only for the purpose of distributing samples to vessels, and to the incredulous for their persuasion; and it was only after that time that a fair business sprung up, and my manufacture began to flourish. I have unfortunately neglected my home trade, and have only pursued the carrying out practically the manufacturing abroad, entirely for the Government use.

The very people to whom their Lordships now intend applying for the supply of preserved meats, although great enemies of mine, have acknowledged that they are indebted only to me for the revival of this branch of trade, which had so entirely sunk previous to my appearance. In fact, several of the then Lords of the Admiralty, declared the practicability of the use of preserved meats as a thing impossible, for the causes before described; but now, my process shares the same fate with all improvements, the past is forgotten, the present is not duly estimated, and something is at once desired which can only be accomplished by time and perseverance.

I will not occupy longer their Lordships' time and attention by going further into details, but have the honour to submit to them the following proposal.

As I have incurred considerable expense in preparing to commence the manufacture for the fulfilment of the contract of 1851, I beg that their Lordships will despatch a qualified person, not only capable of judging of the quality of the meat, but able to test all my statements, and to make himself master of the practical part of the manufacture. I am quite willing to follow the recommendations of such a person, as to the most suitable parts of the meats to put into the canisters; as it is quite immaterial to me to keep back any part of the carcase, which in the opinion of their Lordships would be objectionable to deliver for the service of the navy. Nor should I consider that, with the approval by such a person of the quality and of the manipulation, that their Lordships would be bound to receive the meat without any further test. The adoption of this plan would at least have the following results, viz., it would inform their Lordships of what I am doing, and what is capable of being done in preserving meats; it would prevent their Lordships from incurring a great expense, in procuring preserved meats at a higher price, without being sure that the same will answer, or of preserving, under my patent process, whether the use of the same will be permitted, which I will try by a court of law. It would further give time to their Lordships to have the different

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different meats offered to them sufficiently tested before their adopting; and at all events, by saving my establishment from the severe blow their Lordships seem to have decided upon, the price of such provisions will also be kept in check by its existence.

It is true that a person who should be a man of superior knowledge, would be an expense to Her Majesty's Government, but it will be less expensive by far than having to pay an increased price for their provisions. If their Lordships mean to discontinue entirely the use of preserved meats, I have nothing to say, but that I am treated very hard; but if their Lordships intend continuing their use, they will find my suggestions the only practical ones. They will never succeed in supplying the wants of Her Majesty's Navy satisfactorily with preserved meats, by contracts, renewable at short periods, with different parties.

Their Lordships' course should be, to support an establishment under their immediate control; and by fixing prices and quantities, such an establishment would be able to afford the introduction of the improvements before suggested. Such a fair proceeding would further save the trouble, even if unsuccessful, of seeking that redress which a person who feels himself injured generally does in his despair.

With respect to the question of replacing some quantities of meat condemned, I decline entering on that at present, as I am not fully acquainted with what my agents have done in the matter.

Now if their Lordships will take my statements and proposal into their serious consideration, and will compare the difficulties Her Majesty's Government have had to contend with, before other articles of food were brought to the most convenient and practical footing, they will see at once that I have not been the most troublesome. Have their Lordships been able to obtain salt provisions in the same perfect state they do now, without a great length of time and great sacrifices? If their Lordships will look back on the immense expenditure and waste to no purpose of live stock, they will find the expense of preserved meats only a small item.

The matter of bringing the preserved meat into proper and practical use is a very important one, and their Lordships will confer a great benefit on seamen by its proper introduction; and though some of them may have expressed their dislike to it, their Lordships are perfectly aware that even the better class do not always like what is for their good.

The time will come, when that article will prove very beneficial to the public. Their Lordships have the advantage of my establishment to acquire the practical experience necessary for carrying out a great object.

I have only to add, that my intention never was to impose in any way on the Government, but to do only what is strictly right, and establish the use of this description of food at a moderate price.

An early reply to the present will be most thankfully received by their Lordships' most obedient servant for his guidance.

I have, &c.

T. T. Grant, Esq.,
Comptroller for Victualling, &c.

(signed) *S. Goldner.*

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Galatz, 19 June 1851.

T. T. Grant, Esq.

I TAKE the liberty of addressing you these private lines, not with the view of asking you to deviate in any way from your public duties (which I am perfectly convinced would be altogether useless), to assist me in the present difficulties, but to ask your support to bring the following matter *à jour*.

I began to preserve in Galatz in 1844, and as I had to pay a duty per head on the cattle slaughtered, I have only bought large-sized oxen, so that the duty should become more reasonable; but later some change in those duties having taken place, I began to slaughter partly a small size of Wallachian cattle, say about 35 stone; the meat of that cattle is the most beautiful both in its appearance and flavour, and when preserved I have opened several canisters, and they proved excellent. Some of this meat having been sent back to me for inspection, I found the same in the canisters perfectly altered, the fibres of the meat entirely broken down, and the whole nearly reduced to a liquid by the motion of the meat in the canister. Now what I want is, that Government should look into this matter, and treat the same according to its merits. The meat preserved from the large cattle is of a sound, good substance, and has always proved so, and will remain during any voyage the same. If the Government had complained before of the overdone meat, and that it had turned to a mash, I should have had the opportunity of ascertaining this fact sooner. Now as the whole matter is a mere misfortune, I beg that you will kindly assist me in obtaining an investigation respecting those facts, and that a person from Government should inspect my provisions while preserving. Now the fact of the other preservers being obliged to cook a canister of preserved meat of about 12 lbs. from nine to twelve hours, by the old process, will convince you that no nutriment can remain in the meat so preserved, and the Government will only be in the same position respecting the preserved meat as they were before I entered the field, and even worse than they are at present with all the complaints. Now you are perfectly aware that I do not want more than about three hours' time to preserve a 12 lb. canister. I have no doubt that you will see the justice of my demand, and will not only be anxious to assist a man who is so strongly hit at as I am, and the justice to bring truth and valuable information to light. You will find that I will act towards the Government with the greatest fairness possible, and will be entirely guided by your kind advice in the matter.

I remain, &c.

(signed) *S. Goldner.*

App. No. 5.

Sir, Admiralty, 4 July 1851.

Your letter of the 9th ultimo, on the subject of your contract for preserved meats, having been laid before their Lordships, I have to acquaint you in reply thereto, and with reference to former letters on this subject, that you must be aware that the contract of 1851 has terminated, and that their Lordships will not again enter into any engagement with you for the supply of preserved meat; but they will continue to charge you with the value of such meat as may from time to time be condemned, or with the excess of price if meat be purchased elsewhere, and more money be paid for it.

I am, &c.
(signed) *Thos. T. Grant.*

Mr. S. Goldner,
137, Houndsditch.

Sir, Galatz, 11 August 1851.

I have the honour to acknowledge the receipt of a duplicate communication, dated the 4th July, conveying to me their Lordships answer to my memorial of the 9th of June, a communication of the 5th July, informing me that Mr. S. S. Ritchie had declined to act as my agent, and a letter of the same date stating that it is not their Lordships' intention to send a person to inspect the preservation of meat; all these I found on my return to Galatz.

I also received several communications through Mr. S. S. Ritchie.

In answer, I beg to state that I am laying the whole case before my legal advisers, and will act in the matter according to their advice; immediately I receive the same I shall have the honour to inform you of the steps I am going to take in the matter. In the meantime Mr. S. S. Ritchie, although not agent with full powers to act, is authorised by me to receive all their Lordships' communications, and answer such as may not involve any great responsibity on his part; others he will communicate to me, as he will be always informed where I might be, as I shall not remain always in Galatz.

I am quite at a loss to know the reason why their Lordships are not disposed to listen to the most reasonable proposals I have made, but seem to view this matter with a prejudice against myself; I am therefore bound to have the whole matter publicly investigated, and then receive such a proportion of the blame as I may be entitled to.

I have, &c.
(signed) *S. Goldner.*

Thomas T. Grant, Esq.,
Comptroller of Victualling.

App. No. 5.

Sir, Cracow, 1 November 1851.

I HAD the honour to address you on the 11th August, stating that I would submit the whole matter to my legal advisers, which I have done. I now beg to inform you that I am advised to leave the case in their Lordships' hands. I will therefore wait until their Lordships are pleased to decide on my several memorials laid before them, and I have no doubt but their Lordships will be satisfied of the justice of my proposals in the same.

Should their Lordships continue the supply of preserved provisions as a ration for Her Majesty's navy, they should not give that mortal blow to my establishment abroad, which was established entirely for their service. In the meantime I am compelled to abandon it, as it would be a folly to continue any operations therein while the present Vice-consul is at Galatz.

I have, &c.

—— Grant, Esq. (signed) *S. Goldner.*
Admiralty, London.

Appendix, No. 6.

COPY of CONTRACT with *S. Goldner*, Esq., dated 28 December 1844.

App. No. 6.

CONTRACTED and agreed upon this 28th day of December, in the year of our Lord 1844, by and between Stephen Goldner, of Houndsditch, in the City of London, preserved meat manufacturer, of the one part, and the Commissioners for executing the office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, (for and on behalf of Her Majesty, her heirs and successors), of the other part, as follows—that is to say, the said first-mentioned contracting party doth hereby for himself, his heirs, executors and administrators, covenant, contract and agree to and with the said Commissioners, free of all charge and risk to her Majesty, to supply and deliver into store at Her Majesty's Victualling Yard, at Deptford, within 15 days after the date of each respective demand, all such quantities of preserved meats, consisting of beef and mutton, and preserved vegetables, consisting of carrots, cabbages, turnips and other vegetables, mixed or otherwise, as shall from time to time be demanded of him or them by the said Commissioners, now or for the time being, or by their order or authority, and to deliver the same in large or small cases as shall by the said Commissioners be from time to time demanded.

App. No. 6.

In consideration whereof, the said Commissioners do hereby, for and on behalf of Her Majesty, covenant and agree that the said first-mentioned contracting party shall be paid for such preserved meats and vegetables at the rate of 6 *d.* per pound.

And the said first-mentioned contracting party doth for himself, his executors and administrators, further covenant and agree that the said beef and mutton shall be put into the said cases in a raw state, and as far as practicable, in whole pieces, and that after the same shall have been preserved and delivered into store as aforesaid, each one pound case shall contain 12 ounces of meat, and not less than four ounces of pure gravy or pieces of the meat; and each two pound case shall contain 24 ounces of meat, and not less than eight ounces of pure gravy or pieces of the meat, and cases of other sizes in due proportion thereto; and that all the said beef, mutton and vegetables shall be delivered in cases, well and sufficiently painted, and shall be in all respects, as to quality, in strict conformity to the samples approved of by and lodged with the said Commissioners, good and fit for Her Majesty's service, and such as the proper receiving officers at Deptford shall approve of, otherwise those officers shall be at liberty to reject the same.

And the said first-mentioned contracting party doth further covenant and agree to give to the said Commissioners timely and sufficient notice, in writing, of the periods at which he intends to preserve the said meats and vegetables, in order that the said Commissioners shall (if they think necessary) appoint some person or persons to enter the manufactory where the said meats and vegetables are being preserved, and to ascertain that the process of preserving the same is in every respect conformable to the conditions of this contract.

And it is hereby further agreed by and between the said parties, that the said receiving officers shall, upon every delivery of the said meats and vegetables, have power and be at liberty to open such a number of cases containing the same as they may deem requisite, in order to ascertain that the contents thereof are in every respect agreeable to the conditions of this contract, and that the said first-mentioned contracting party shall forthwith remove and take away from the said stores all such cases, together with their contents (although of an approved quality), as may have been so opened, and immediately replace the same with other similar cases and contents, without making any charge for the cases and contents so returned.

And in case of any meats and vegetables being delivered, which from defects or inferior quality, shall be refused by the said receiving officers, it is hereby covenanted and agreed upon, that the same shall be removed and taken away by the said first-mentioned contracting party, his executors or administrators, at his or their own expense, and if not so removed and taken away within one week after notice given to the said first-mentioned contracting party, his executors or administrators, or some or one of them, of such meats and vegetables having been so refused as aforesaid, the officers of the said yard shall have power and be at liberty to return such rejected meats and vegetables, and the expense of unloading, re-shipping, and carrying them back shall be deducted and abated by the said Commissioners from

from the bills to be made out by them to the said first-mentioned contracting party, his executors or administrators.

And it is agreed that upon the said first-mentioned contracting party producing to the said Commissioners, at their office in Somerset-place, London, a certificate or certificates signed by the proper receiving officers of the said commissioners at Deptford aforesaid, of the right and true delivery and receipt of the meats and vegetables hereby contracted for, the said first-mentioned contracting party shall be paid for the meats and vegetables so delivered and received, by bills to be drawn upon Her Majesty's Paymaster-general, payable at sight.

And it is hereby provided that the said first-mentioned contracting party shall, upon the presentation of the vouchers required for the purpose of obtaining payment for the meats and vegetables delivered under this contract, transmit under sealed cover, addressed to the Accountant-general of the Navy, a statement or abstract in the form of a bill of parcels, of the true and correct quantity of meats and vegetables so delivered and received, and of the sum payable for the same, calculated at the price specified in this contract.

And the said first-mentioned contracting party doth covenant, engage, and warrant that all the meats and vegetables which shall be supplied and delivered under this contract shall keep, remain, and continue perfectly sound, sweet, and good, and fit for use for the full period of five years, to be computed from the respective dates of the said certificates of the delivery thereof into Her Majesty's stores.

And it is provided and agreed, that in case any part thereof shall, upon any survey or surveys of the same to be made at any one or more time or times within the said period, either in Her Majesty's stores or on board any of Her Majesty's ships or vessels, or any transport vessel in Her Majesty's service, be found by the proper officers making such survey or surveys, or by the major part of them, to be, by reason of unsoundness or defect in quality or condition, not fit for the use of Her Majesty's service, which survey or surveys shall and may be made by the proper officer or officers, agent or agents of the said Commissioners, or by any other officer or officers in Her Majesty's service, whether naval or otherwise, then, and in every such case, it shall and may be lawful for the said officers to condemn the same, which condemnation, the said Commissioners producing and showing to the said first-mentioned contracting party, if required, the reports, vouchers, or other documents, or written evidence of such survey and condemnation, shall be conclusive on the subject.

And it is expressly declared and agreed by and on the part of the said first-mentioned contracting party, that in the event of his failing to deliver such quantities of the said meats and vegetables as shall from time to time be demanded, within the time and of the quality and goodness before mentioned, or if any part of such meats and vegetables shall, upon any such survey as aforesaid, be found unsound and be condemned as aforesaid, then and in either of the said cases, and as often as the same shall happen, it shall and may be lawful for the said Commissioners for the time being to cause to be purchased, in any manner they may think proper, any quantity or quantities of meats and vegetables as shall be equal to that or those which

App. No. 6.

which the said first-mentioned contracting party shall fail to deliver with respect to time or quality, or which shall be condemned as aforesaid; and the said first-mentioned contracting party doth agree that it shall and may be lawful for the said Commissioners, or the Commissioners for the time being, to stop and abate from any bill or bills then made out and undelivered, or to be made out to the said first-mentioned contracting party, on this or any other contract, not only the full amount of the value of the said meats and vegetables, calculated at the price stipulated in this contract, in case the said first-mentioned contracting party shall have received payment for the same, but likewise the full amount of the surplus cost, if any, of the meats and vegetables so purchased beyond the said stipulated price, together with all costs, charges, damages, and expenses attending the purchasing or procuring the same, and if there shall be no such bill or bills, or if the same shall not amount to a sufficient sum, then the said first mentioned contracting party doth oblige himself, his heirs, executors, and administrators, to pay and make good the same to Her Majesty in such other manner as the said Commissioners for the time being shall require, over and above the sum of 100*l.* hereinafter mentioned as stipulated or ascertained damages for the breach of this contract, or any part thereof.

And it is hereby further covenanted and agreed upon that this contract shall commence on the day of the date hereof, and continue in force for twelve months certain, and after the expiration of that time until the expiration of three months' warning or notice, which shall be given in writing by either party to the other to discontinue the same.

And the said first-mentioned contracting party doth further covenant, that with the first and last delivery of meats and vegetables on this contract he shall and will produce and leave at the office aforesaid a written declaration, signed by himself, that he hath not then, directly or indirectly, given or caused, nor allowed to be given, or promised to give, nor will afterwards give nor cause nor allow to be given to any officer, clerk, or person whomsoever concerned in the receipt of the aforesaid meats and vegetables, or employed under the said Commissioners or otherwise in Her Majesty's service, or to any person or persons on the behalf or for the benefit of any such officer, clerk, or other person, any money or other thing as a gratuity, fee, or reward for any matter in or relating to this contract or to the supplies under the same.

And the said first-mentioned contracting party doth hereby further covenant and engage that no Member of the House of Commons hath been or shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom.

And for the due and faithful performance of all and singular the covenants, conditions, provisoes, clauses, articles, and agreements hereinbefore contained, which on the part and behalf of the said first-mentioned contracting party are or ought to be observed, performed, fulfilled, or kept, the said first-mentioned contracting party doth hereby bind himself, his heirs, executors, and administrators unto our sovereign Lady the Queen in the sum of 100*l.* of lawful British money, to be paid to our said Lady the Queen, her heirs and successors, by way of stipulated or ascertained damages agreed upon between the said Commissioners

Commissioners and the said first-mentioned contracting party, in case of the failure of the said first-mentioned contracting party in the due execution of this contract, or any part thereof, and in addition to the surplus cost, charges, and expenses which may be incurred by Her Majesty in the purchasing or procuring of any quantity of meats and vegetables which the said first-mentioned contracting party shall fail to deliver as above-mentioned.

In witness whereof the said parties to these presents have hereunto respectively set their hands and seals the day and year first above written.

S. Goldner. (L. S.)
Wm. Bowles. (L. S.)
W. Gordon. (L. S.)

Signed, sealed, and delivered in the presence of
Jno James.

KNOW ALL MEN BY THESE PRESENTS, That we, *Stephen Goldner*, of Houndsditch, in the City of London, Preserved Meat Manufacturer, and *George Blogg*, of Bucklersbury, London, Diamond Merchan t are jointly and severally held and firmly bound unto our sovereign Lady Victoria, by the Grace of God Queen of the United Kingdom of Great Britain and Ireland, in 100*l.* of good and lawful money of Great Britain, to be paid to our said sovereign Lady the Queen, her heirs or successors, to which payment, well and truly to be made, we bind ourselves and each of us for the whole, and our several and respective heirs, executors, and administrators, and each and every of them firmly by these presents. Sealed with our seals. Dated this 28th day of December in the year of our Lord 1844.

The condition of the above obligation is such, that if the above-bounden Stephen Goldner, his executors or administrators, do and shall well and truly observe, perform, fulfil, and keep all and singular the covenants, promises, articles, clauses, agreements, matters, and things mentioned and contained in a certain deed under seal, bearing even date herewith, purporting to be a contract made between the above-bounden Stephen Goldner of the one part, and the Commissioners for executing the office of Lord High Admiral of the United Kingdom of Great Britain and Ireland (for and on behalf of Her Majesty) of the other part, which on the part and behalf of the above-bounden Stephen Goldner, his executors or administrators, are and ought to be observed, performed, fulfilled, and kept according to the true sense, intent, and meaning of the said instrument or contract, that then the above obligation shall be void and of no effect, or otherwise shall be and remain in full force and virtue.

(signed) *S. Goldner.* (L. S.)
George Blogg. (L. S.)

Signed, sealed, and delivered (being first duly stamped) in the presence of
Jno Doutty.

Appendix, No. 7.

App. No. 7. COPY of REPORTS from the Officers of Deptford Yard that Condemned some Meat of Messrs. *Moore & Hogarth*, in December and January last, at Deptford.

Admiralty, 12 January 1852.

WITH reference to the enclosed report from the superintendent at Deptford, transmitting one from the officers of the yard, as to the rejection of certain preserved meat tendered for delivery by Mr. Hogarth under his contract of the 4th of last month, in consequence of the canisters not being of the stipulated weight, and stating at the same time that the contents of the canisters which were opened were of an unsatisfactory appearance; I am to acquaint you that my Lords have approved of the proceedings of the officers in having rejected the meat referred to, and have also refused the request, contained in the accompanying letter from Mr. Hogarth, to allow canisters of short weight to be received, in consideration of the excess of weight of the canisters delivered under his previous contract.

By command of their Lordships,

(signed) *W. A. B. Hamilton.*

Comptroller of Victualling.

REJECTION OF PRESERVED MEATS.

(22.)

Deptford Victualling Yard,
8 January 1852.

Sir,

WE beg leave to acquaint you that Mr. Hogarth has tendered for delivery 25,836 pounds of preserved meat, under his contract of the 4th ultimo, which we should have been bound to reject, in consequence of the canisters not being of the stipulated weight. But on opening 21 of the canisters, we found some parts of the meat in some of them, particularly in those of 6 lbs., in a state which gave it the appearance of dry, hard, and stringy muscular fibre, as if it had been much over-boiled; and in others the gelatine on the outside of the meat, particularly at the bottom of the canisters, was soft, dark-coloured, turbid, and altered in consistency, and the meat itself softening,

softening, giving us reason to fear that that incipient state of decomposition which led to the pulpy and filthy condition of Mr. Goldner's meat, lately surveyed at this place and destroyed, has begun. App. No. 7.

We also beg to observe that, for the first time since Mr. Hogarth has supplied preserved meats, we perceived that peculiar discoloration of the meat which was so remarkable in all the very bad canisters of Mr. Goldner's deliveries; we therefore think it our duty at this early period, the first delivery under the new contract, to submit these circumstances for your consideration.

We have, &c.
(signed) *E. J. P. Pearn*, Master Attendant.
John Breaks, Storekeeper.
Edw. Ede, Assistant Storekeeper.
John Brown, Assistant Surgeon.

Captain Superintendent
The Hon. R. S. Dundas, C.B., &c. &c. &c.

8th January.

Submitted, observing that in consequence of the officers' verbal representation to me I directed the assistant surgeon to assist them with his opinion, in the examination of this meat, and further to assist them on all future similar occasions when they should specially require his attendance.

(signed) *R. S. Dundas*,
Comptroller of Victualling. Captain Superintendent.

REJECTION of 2,419 Canisters of PRESERVED MEATS.

(83.)

Deptford Victualling Yard,
Sir, 23 January 1852.

ON examining 18 canisters of preserved meats, out of a delivery of 2,419 canisters sent here by Mr. Moir, under his contract of the 16th October last, we beg to report that we found, in one of them, the fat mouldy and tainted; in another, the meat exhibited a greenish hue upon the surface, and the fat of it was soft; in two others, the gelatine was partially turbid, and altered in its consistency; and in several, there was a little congealed blood, with discolouration of the meat, and softening of the fat. The meat in the whole 18 canisters, when killed, had obviously been of good quality, and, with the exception of the first above referred to, was fit for immediate use; but the above suspicious appearances of the meat lead us to fear that it will soon become quite decomposed and unfit for the service. We think the number of canisters we have opened, and the state we found the meat in, as above described, considering how short a time it had been in the canisters, sufficient to warrant us to reject the whole delivery, it being

App. No. 7.

being impossible to know what proportion of the canisters may be in the same state; or, indeed, in what condition it may be at all.

We have, &c.,
(signed) *E. J. P. Pearn*, Master Attendant.
John Breaks, Storekeeper.
Edw. Ede, Assistant Storekeeper.
John Brown, Medical Storekeeper.

Captain Superintendent
The Hon. R. S. Dundas, C.B., &c., &c., &c.

24 January.

Submitted for information,
(signed) *R. S. Dundas*,
Captain Superintendent.

Department of the Comptroller for Victualling and Transport Services.

Sir, Admiralty, 28 January 1852.

Messrs. Moir & Son having requested that some of the canisters containing their preserved meats rejected on the 23d instant at Deptford may be opened, in their presence, I have to request that you will afford the necessary facilities for the canisters being opened accordingly, but in the presence also of the receiving officers.

I am, &c.
(signed) *Thos. T. Grant.*

Captain Superintendent, Deptford.

Examination of Preserved Meats.

(103.)

Deptford Victualling Yard,
Sir, 30 January 1852.

With reference to the comptroller's letter of the 28th instant, permitting Mr. Moir to attend at this yard to examine some of the canisters of preserved meats which had been rejected by us, we beg leave to report that yesterday Mr. Moir himself and one of the *employés* of Messrs. Finnis & Fisher (the agents of Mr. Moir) attended accordingly, when nine canisters of the said meat were opened, and the following was the result:

One was found to be fœtid and pulpy.

One was found fast decomposing, the gelatine having become turbid and altered in its consistency; half way down the canister the meat was disagreeable in appearance.

Two were found in an early stage of the above described.

Five were found to be of excellent quality, and in a good state of preservation.

The

The meat in the whole of these canisters was produced from well-fed cattle, and, with the exception of that in the first, was fit for early consumption.

The contractor gave it as his opinion, that canisters of 9 lbs. and 12 lbs. are too large for a curer to be certain of the contents being thoroughly preserved, for the same care had been taken with those as with the 6 lbs canisters previously delivered, which gave such satisfaction.

We have, &c.

(signed) *E. J. P. Pearn*, Master Attendant.
John Breaks, Storekeeper.
Edw. Ede, Assistant Storekeeper.
John Brown, Medical Storekeeper.

Captain Superintendent
The Hon. R. S. Dundas, C. B., &c. &c. &c.

31st January.

Submitted,

(signed) *R. S. Dundas*,
Captain Superintendent.

Comptroller Victualling.

Department of the Comptroller for Victualling and Transport Services.

Gentlemen, Admiralty, 7 February 1852.

With reference to your letters of the 26th and 29th ultimo, I have to inform you that, as it is your opinion that preserved meat, in order to ensure safety, should not be packed in cases containing more than 6lbs. their Lordships on the receipt of a letter signed by you and your sureties requesting that the remainder of the meat due under your contract when you have worked up the tin that you have now on hand for 9lb and 12lb cases, may be delivered in cases of 6lbs., and that such alteration shall not prejudice your several liabilities under the contract and bond, will have no objection so far to relax the conditions of your contract; and their Lordships will also repay you the cost of the labels for 9lb and 12lb canisters which have already been manufactured, and will not now be required.

I am, &c.

Messrs. D. Hogarth & Co. (signed) *Thos. T. Grant.*
Aberdeen.

Department of the Comptroller for Victualling and Transport Services.

Gentlemen, Admiralty, 7 February 1852.

It appearing that, on the recent examination of your preserved meats at Deptford, you stated your opinion, that cases of 9 lbs. and 12 lbs. are too large for a curer to be certain of the contents being thoroughly preserved, I have to inform you, that on the receipt of a letter

App. No. 7.

letter signed by you and your sureties, requesting that the remainder of the meat due from you may be delivered in cases of 6 lbs. each, and that such alteration shall not prejudice your several liabilities under the contract and bond, their Lordships will consent so far to relax the conditions of your contract.

I am, &c.

(signed) *Thomas T. Grant.*

Messrs. Moir & Son,
Aberdeen.

Appendix, No. 8.

STATEMENT showing the CONDEMNATIONS which have taken place of MEATS Supplied for the Use of the NAVY by Mr. *Goldner*, made up to the 6th April 1852.

	£.	s.	d.		£.	s.	d.	£.	s.	d.
Stopped from bill, 24 February 1851	875	7	5	Total value of condemnations on board ships and in store, up to 4th February 1852	6,118	10	1			
Stopped from contractor, and remaining in hand	3,201	–	–							
Penalty under bond of sureties for	3,000	–	–	Total value of condemnations on board ships and in store, between 5th February and 6th April 1852	573	2	8			
								6,691	12	9
				Balance	–	–	–	384	14	8
£.	7,076	7	5				£.	7,076	7	5

8 April 1852.

Thos. T. Grant, Comptroller of Victualling.

N.B.—The above is the value of the condemnations up to the present period, so far as accounts have been received, but it is to be observed, that there are supplies of Goldner's preserved meat in store, recently returned from ships abroad, but upon which no special survey has yet been ordered to be made; several of the canisters opened indiscriminately have been found to be perfectly sweet and good, and fit for issue.

Appendix, No. 9.

App. No. 9.

A RETURN showing the Quantity of PRESERVED MEAT furnished by each Contractor or Manufacturer, and the Quantity Rejected and Condemned; the Manufacture of each, since the Year 1844 (inclusive).

CONTRACTORS' NAMES.	QUANTITY.		
	Furnished.	Rejected.	Condemned, or Provisionally Condemned.
	Lbs.	*Lbs.*	*Lbs.*
Mr. Goldner - - -	3,257,795	131,222	350,905
Mr. Cooper - - -	43,236	18,632	* 51,463
Mr. Gamble - - -	105,386	41,212	
Mr. Ritchie - - -	600	—	—
Mr. Gillon - - - -	7,046	—	—
Messrs. Hogarth - - -	525,311	25,836	709
Messrs. Moir - - -	76,083	26,226	—
Messrs. Powell & Son - -	29,004	11,748	567

* Messrs. Gamble supplied 43,216 lbs., and Messrs. Cooper 43,236 lbs., making together 86,542 lbs. of preserved meat for Captain Austin's expedition, of which 51,463 lbs. were returned and condemned. The cure of each manufacturer cannot be ascertained without great delay, in consequence of the canisters being indiscriminately stowed together in the stores, according to their sizes.

Thomas T. Grant,
Comptroller of Victualling.

Department of the Comptroller
for Victualling and Transport Services,
Admiralty, 22 April 1852.

Appendix, No. 10.

App. No. 10.

Preserved Meats (Navy).

6 April 1852.

Mr. Ede, assistant storekeeper at Deptford Victualling Yard, proceeded, by the direction of the Comptroller of Victualling, to the House of Commons, to open, before the Committee on Preserved Meats, certain canisters taken indiscriminately from those in store at Deptford, and received there from various contractors for the use of the Fleet.

1 Canister, of 6 lbs. Hogarth's Boiled Beef.

The meat was of excellent quality and well preserved; the gelatine firm and transparent, resembling the finest calf's-feet jelly; the taste of the meat was good.

1 Canister, of 6 lbs. Moir's Boiled Beef.

The meat was of good quality, but at the top of the meat the gravy appeared to have mixed with the gelatine and rendered it dark in colour. This discolouration of the gelatine was stated by Mr. Ede to be the precursor of decomposition, though in this canister no evidence was exhibited of the softening of the fibre or fat.

1 Canister, of 4 lbs. Hogarth's Roast Beef; supplied for the Arctic Expedition.

The meat appeared like fresh-cooked meat, possessing the smell and flavour of good cold roast beef. The gelatine was transparent and firm.

1 Canister, of 4 lbs. Hogarth's Roast Mutton; supplied for the Arctic Expedition.

The meat of excellent quality, smell and flavour; gelatine bright and firm.

1 Canister, of 4 lbs. Hogarth's Rump Steaks and Onions; supplied for the Arctic Expedition.

Most satisfactory; possessing the properties of fresh-cooked steaks become cold. The onions were in a perfect state of preservation, retaining their full flavour and pungency.

1 Canister,

1 Canister, of 1 lb. Gillon's Boiled Mutton; supplied as a Medical comfort. App. No. 10.

The meat of good quality and taste, and the fibre and fat firm, but the gelatine, though transparent, was less firm than that in the canisters before opened.

Mr. Ede also opened before the Committee,

1 Canister, of 6 lbs. Goldner's Boiled Beef, of the 1850 Contract.

When the top of the canister was removed, Mr. Ede called the attention of the Committee to the state of the gelatine, which, though still firm, was turbid, and wished the Honourable Members to notice that when the canister was removed from the meat the surface of it would be found to be softened (one of the evidences of decomposition), and that the softening would be seen to have penetrated towards the centre wherever there was a fissure, while the fibre between the fissures would be firm and in good preservation. This proved to be so. The meat was still good for human food, but Mr. Ede stated, with those marks of alteration in the consistency of the gelatine and surface of the meat, it was simply a matter of time to convert the whole into a perfectly decomposed mass.

1 Canister, of 6 lbs. Goldner's Boiled Beef, of the 1850 Contract.

The whole contents of this canister was in a pulpy state, still, however, showing, as Mr. Ede observed, that the altered condition of the meat had been gradual, and had commenced on the external part and proceeded towards the centre. Mr. Ede also called the attention of the Committee to the quantity of fat in this canister. Decomposition had so far advanced that the fatty matter was entirely separated from the fibre, and was dispersed in the form of small particles throughout the mass; the quantity of fat, however, showed that the meat had been originally of good quality.

Mr. Ede pointed out to the Committee that Goldner's meat, when first received, was quite equal to any which had ever been supplied from a British manufacturer, and at the same time more agreeable in flavour; that it was from having been accustomed to see meat of such good quality as Goldner's that the receiving officers at Deptford rejected a large quantity of English preserved meats, delivered by Messrs. Powell & Co., as below the standard they had considered as fit for the Navy.

Appendix, No. 11.

RETURNS showing the Date and Terms of all CONTRACTS for PRESERVED MEAT for the Use of Her Majesty's NAVY, with *Goldner*; also the Quantities issued since the commencement of the above Contracts, specifying the Quantities fit for Use, as well as the Quantities either Condemned or returned into Store as unfit for Use, from any of Her Majesty's Stores or Ships, whether at Home or Abroad; Complaints, when first made, and whether, after such Complaints, further Contracts were entered into with the same Parties; whether these Meats were issued to the Arctic Voyagers; whether Captain Austin's Stores were examined and found bad, and if so, were they served from Goldner's Contract; of the Quantity of Cases, if any, the Contractor has been allowed to withdraw from Her Majesty's Stores after having supplied the same, stating how long such Cases had been in Store.

PRESERVED MEATS.

Particulars Required.	Date of Contracts, &c.	Quantity Contracted for.	Price per Pound.	Penalty for Rejection.	Security Required.	Period of Warranty.	Other Particulars.
The date and terms of all contracts for preserved meats, for the use of Her Majesty's Navy, with Goldner?	Contract, 28th December 1844.	-- All such quantities as demanded, for 15 months certain, and further till notice given on either side for termination	6 *d.* - - -	- - Refunding payment, and paying all excess of costs of purchases in lieu, and over and above the general penalty of 100 *l.*	£. 100	5 years	
	Agreements of—						
	4th and 10th June 1846.	750,000 pounds -	5 *d.* - - -	- - - - - -	-	- -	-- The prices were reduced by the contractor, in consequence of the large demands being made upon him.
	3d March 1847 -	390,000 „ - -	5 *d.*				
	15th and 19th Feb. 1848.	800,000 „ - -	5 ½ *d.*				
	Under the above contract.						
	Contract, 2d May 1850.	500,000 pounds to be delivered—	- - - -	- - Refunding payment, and paying all excess of costs of purchases in lieu, and over and above a mulct equal to the value of the canister and its contents, and moreover of the general penalty of 3,000 *l.*	3,000	5 years	- - Meat of the best quality, and canisters of the best tin.
		One-third in 6 lb. canisters.	5 ⅝ *d.* in 6 lb. canisters.				
		One-third in 9 lb. canisters.	5 *d.* in 9 lb. canisters.				
		One-third in 12 lb. canisters.	4 ¾ *d.* in 12 lb. canisters.				

	Contract, 29th Jan. 1851.	800,000 pounds to be delivered—	- - - - -	- - Ditto; and moreover of the general penalty of 4,000 *l.*	4,000	5 years - - ditto.
		One-third in 6 lb. canisters.	5 $\frac{1}{8}$ *d.* in 6 lb. canisters.			
		One-third in 9 lb. canisters.	5 *d.* in 9 lb. canisters.			
		One-third in 12 lb. canisters.	4 $\frac{3}{4}$ *d.* in 12 lb. canisters.			

The quantities issued since the commencement of the above contracts?

2,741,988 pounds, according to returns received to the 5th February 1852. Additional issues have subsequently taken place from the stores abroad; but no returns have been received stating the actual quantities.

The quantities fit for use?

2,613,069 lbs. or 95 per cent. of the above quantity issued, were found fit for use; but of the quantities issued prior to the 5th February 1852, or of the quantities subsequently issued, 31,395 lbs. prove by returns, since received, to have been condemned.

The quantities either condemned or returned into store as unfit for use, from any of Her Majesty's stores or ships, whether at home or abroad?

414,308 lbs., including a large quantity which has undergone a partial examination, and been only provisionally condemned.

Complaints, when first made?

Condemnations of preserved meats have occurred ever since their first introduction as an article of diet in Her Majesty's Service. The earliest complaint of objectionable matter found in a canister, was received in office on the 24th November 1849.

Whether after such complaints further contracts were entered into with the same parties?

Yes; but it is to be observed, that prior to the formation of the contract of 2 May 1850, only three complaints of objectionable substances discovered in seven canisters, had been received in office. Between that period and the formation of the contract of 29 January 1851, 11 further complaints of a similar character were received in office, respecting offal discovered in 21 canisters mixed with the meat; amounting, on the result of all the complaints, to $\frac{1}{165}$ per cent. of the total quantity delivered by the contractor, to that date.

(*continued*)

The Supplies of PRESERVED MEAT for the Arctic Voyagers, were obtained as follows:

Particulars Required.	SHIPS.	When Supplied.	Description of Meats Supplied.	Price per Pound.	Other Particulars.
Whether these meats were issued to the Arctic voyagers?	Erebus and Terror -	Michaelmas quarter, 1839	- - Meat specially contracted for with Messrs. Cooper, Gamble, Wells, Cope, Simpkin, and Nichol.	7 *d.* to 2 *s.*	-- Packed in canisters of various sizes.
	Erebus and Terror -	- Midsummer and Michaelmas quarters, 1845.	Meat of a superior description and quality, obtained from Goldner, by special purchase.	8 *d.* to 1 *s.*	-- Packed in canisters containing from 1 lb. to 8 lbs. each.
	Plover - - -	Christmas quarter, 1847 -			
	Enterprize and Investigator.	Midsummer quarter, 1848			
	Enterprize and Investigator.	- - Christmas, 1849, and Ladyday quarter, 1850.	- - Meat of a superior description and quality, obtained by special purchases, nearly all from Messrs. Gamble.	8 *d.*	-- Packed in canisters containing from 4 lbs. t8 lbs. each.
	North Star - -	Midsummer quarter, 1849	- - About half the supply consisted of the meat usually delivered by Goldner; and the residue consisted of meat of a superior description, obtained from him by special purchase.	10 *d.* to 1 *s.*	-- Packed in canisters containing from 4 lbs. to 10 lbs. each.
	Assistance and Resolute	Midsummer quarter, 1850	-- Meat of a superior description and quality, obtained by special purchases from Messrs. Cooper & Gamble.	7 $\frac{3}{4}$ *d.* to 8 $\frac{1}{4}$ *d.*	-- Packed in canisters containing from 2 lbs. to 8 lbs. each.

Whether Captain Austin's stores were examined, and found bad?

Of 86,614 lbs. of preserved meats supplied to the "Assistance" and "Resolute," 18 lbs. were condemned during their voyage; and 762 lbs. on their return to this country in October last; but of the total quantity of 51,463 lbs., then returned into store from those ships at Deptford Victualling Yard, it has since been found necessary to condemn 1,226 lbs. more; and in consequence of the very unfavourable reports by the yard officers of the condition of the remainder of the meat, a special survey has been ordered to be held thereon, as soon as Messrs. Cooper & Gamble, from whom the meat was procured, can be present at its examination. On a subsequent survey, the remainder of the meat, 50,237 lbs., returned from the "Assistance" and "Resolute," has been condemned.

If so, were they served from Goldner's contract?

Not from Goldner. They consisted of meat of a superior description, obtained by special purchases from Messrs. Cooper & Gamble, at prices varying from 7 $\frac{3}{4}$ *d.* to 8 $\frac{1}{4}$ *d.* per pound.

The quantity of cases, if any, the contractor has been allowed to withdraw from Her Majesty's Stores, after having supplied the same?

In consequence of the condemnations and rejections at the home victualling establishments, the contractor was repeatedly directed to remove from the several yards all the canisters containing such rejected meat, in order that the penalties of his contract might be enforced, and that he might be charged with the excess cost of the meat which might be purchased in lieu. His agent accordingly removed from Royal Clarence Yard, in September 1851, 2,093 canisters, the contents of which were, in his opinion, in a putrid state, or likely shortly to become so; but the contractor subsequently declined to remove any further quantities from either of the victualling yards, until he should be recommended to do so by his legal advisers.

How long such cases had been in store?

Part of the 2,093 canisters were originally delivered into store by the contractor in September 1848, part in June, July, and November 1849, and part in November 1850. They were all removed, as before stated, in September 1851.

1 May 1852.

Thos. T. Grant, Comptroller of Victualling.

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"*AMAZON*," H. M. Ship. Remarks relative to the issue of preserved meats on board the "Amazon;" the condemnations amounted to about nineteen per cent. on the whole quantity opened for issue, *Cole* 3113-3123. 3131-3139.

American Provisions. It has been reported that American salt meat has been purchased by contractors at Cork, and supplied by them to the navy as Irish provisions, *Milne* 753-771.——*See* also *Salt Provisions*, 1. 4.

"*Apollo*" *Troop Ship.* Observations of the Committee as regards the issue of preserved meats on board the "Apollo" troop ship, on the conveyance of the 59th Regiment to Hong Kong, and the appearance of the cholera among the troops, *Rep.* xviii, xix——Witness embarked from Cork on the 12th June 1849, on board the "Apollo," with a portion of the 59th Regiment, bound to Hong Kong; number of men, officers, &c., who went out in the "Apollo," *Trevor* 2811-2818——Evidence relative to the cholera having made its appearance on board the day after the vessel sailed; grounds for forming the opinion that they must have taken the cholera out with them; statement as to the mortality on board from cholera, *Trevor* 2819-2822. 2841-2850. 2860-2867. 2898, 2899, 2902-2907. 2919-2921. 2925, 2926; *Leyne* 2946-2951. 3009-3012. 3016-3019; *Rawstorne* 3024-3028. 3062, 3063. 3088-3090; *Cole* 3092-3096. 3104-3112.

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"*Athol*" *Troop Ship.* At the time witness commanded the troop ship "Atholl," in 1849, there was a complaint of the preserved meat being putrid, which may be attributed to injuries received by the canisters, no improper substances were ever discovered in the meat, *Pearn*, 960-981.

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See also *Curing Establishments*, 1. *Fat Meat.* *Prices of Meat*, 1.

B.

Bad Meat. There is every reason to believe that there will be a certain number of bad canisters in every supply, *Grant* 156——In witness's opinion the failure must arise from the deficient process of preserving the meat, and not from any accident to the canisters; if the meat was at all tainted, it would cause decomposition, *Brown* 1222-1227——Grounds on which witness forms the opinion that the decomposed state of the meats found at the general survey is mainly attributable to the fact of the bullocks not having been properly bled, when they were slaughtered, *M'Kecknie* 1582-1588. 1594-1597. 1611-1614——Possibility of preserving bad meat, but the preserving will not turn it good, *Best* 2442, 2443——It is witness's conviction that the preserved meat supplied by Mr. Goldner is not fit for human food, the state of the meat leads

Report, 1852—*continued.*

Bad Meat—continued.

to the conclusion that it has been boiled down for the tallow, *Moore* 2338-2350.

See also *Clarence Yard. Condemnation of Meat. Quality of Meat. Unsound Meat.*

Beef. See *Australian Meat. Salt Provisions.*

Best, Benjamin. (Analysis of his Evidence.)—Provision merchant and preserver of fresh provisions at Holloway, 2375——Has been upwards of twenty-five years engaged in the preserved meat business; was managing foreman for Mr. James Cooper for many years, 2376-2380——Is well acquainted with the mode of preserving meats adopted by Mr. Cooper, in every department, 2381——Process adopted by witness in preserving bottled fruits; this fruit is very much sought after in the East Indies, 2382——Extent of witness's manufacture of preserved meats; witness supplies the trade generally, and merchant vessels; has never had a Government order, 2383-2389——The meat used by witness for preserving is principally obtained from Newgate Market, 2390, 2391——Detail of the process of preserving meat adopted by witness, 2392-2399. 2413-1415——Difference between witness's process and Mr. Goldner's process; Mr. Goldner's is evidently a very satisfactory process for the preservation of meat, but witness prefers his own system, 2392. 2399, 2400. 2405-2409.

Excellent quality of the Australian meat preserved by Mr. Dangar, 2401-2404——Witness has sent in many contracts for supplying the navy, for Mr. Cooper; there never was a canister sent back whilst witness was with Mr. Cooper, 2410-2415——Witness always purchases good ox beef for preserving; necessity, in making preserved meats, to have good meat for the foundation, 2416-2430——Frequency of inferior and bad meat being purchased by the London preserved meat manufacturers, 2431-2441——Mode of disinfecting food by means of the use of charcoal, 2445.

Witness inspected a six-pound canister of preserved meat offered him; small portion of meat contained therein, the remainder being glue, a particular preparation made for the purpose of filling up preserved meat canisters; it is not gelatine, 2449-2459——Supply of large quantities of meats and soups to the merchant service, 2460-2465——Objection to the use of salt in the manufacture of preserved meats; the object of preserved meats is to have fresh provisions, 2466-2469——Principal distinction between witness's process of preserving meats and that adopted by Mr. Goldner, 2470——Opinion that if the use of preserved meats is to be continued in the navy, it would be better for Government to have a manufactory of their own; it is not an expensive process 2471, 2472. The inspectors of the dead meat market in London do not efficiently perform their duties, or a large quantity of the meat sold for preserving would be condemned as not fit for use, 2473-2475.——Price at which the inferior meat is sold at Newgate and Leadenhall markets, 2476-2478——Witness has never had any of his preserved meats returned, as they are never sent out without being proved; average per centage of cases which fail under the process of proving, 2480, 2481.

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Biscuit Flour. Satisfactory nature of the manufacture of biscuit flour and cocoa for the naval service, *Milne* 755-759.

Bottled Fruits. Process adopted by witness in preserving bottled fruits; this fruit is much sought after in the East Indies, *Best* 2382.

Bread. Great benefit has been derived from the Government preparing the bread for the navy in the Government yards, *Morice* 878——The manufactory at Deptford of bread, cocoa, and flour is very successful, *ib.* 899, 900.

British-Cured Meat:

1. *Preserved Meat.*
2. *Salt Provisions.*

1. *Preserved Meat:*

There was a condition in the treaty paper of the contract of 1850, that the meat should be British-cured; reason for this, *Grant* 387-392——There was nothing in the contract of 1850 with regard to its being manufactured in the United Kingdom, *Milne* 581——Suggestions that the preserved meats should be manufactured in the United Kingdom; objections to the manufacture being carried on abroad, *James* 2568. 2574-2577.

2. *Salt Provisions:*

Formerly the salt meat contract stipulated that it was to be the cure of the United Kingdom; circumstances which led to the contract being thrown open and foreign provisions admitted, *Milne* 767-774——Preference to be given to the foreign-cured meat over the British; the Irish-cured meat has fallen off since the famine in 1846, *Ede* 1152-1156.

See also *Curing Establishments*, 1. *Salt Provisions*, 1.

Brown, John. (Analysis of his Evidence.)—Assistant-surgeon and medical storekeeper in the Deptford Government yard, 1173, 1174——Survey of the preserved meat supplied by Mr. Goldner, in May 1851; good state of preservation of those canisters examined, 1175-1178——Special survey of the meats on the 6th November 1851; large quantity examined; condemnation of 2,400 canisters as unfit for human food, on account of decomposition, out of the 2,726 examined, 1179-1188——The only improper substance contained in the canisters examined were pieces of heart, tongue, and kidney, 1189-1191——The canisters surveyed in November 1851 were, many of them, very deeply indented from the pressure of the air; witness is not aware whether they had been injured on board ship, 1197-1200——Survey which took place on the 8th January 1852 of the preserved meats supplied by Mr. Hogarth; symptoms of decomposition discovered, and rejection of the whole thereof, 1201-1203. 1215, 1216.

Survey on the 23d January 1852 of the preserved meats supplied by Mr. Moir, a Scotch contractor; the greater part of the canisters in that survey were found in a greater or less state of decomposition, 1204-1213. 1215, 1216——Some improvement might be made in the construction and strength of the canisters, 1214——Supply of preserved meat for the Arctic expedition by a person

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Brown, John. (Analysis of his Evidence)—*continued.*

a person named Cooper; rejection of a portion of these meats, as it was doubtful whether they would keep, 1217-1221——In witness's opinion, the failure must arise from the deficient process of preserving the meat, and not from any accident to the canisters; if the meat was at all tainted, that would cause decomposition, 1222-1227——Bad odour emitted from the canisters where perforation had taken place; where the canisters were perfect, there was no emission of any fœtid odour, 1228-1243.

C.

CANISTERS:

1. *Defects in the Canisters one great Cause of the Decomposition of the Meat.*
2. *Improvements suggested in the Construction of the Canisters.*

1. *Defects in the Canisters one great Cause of the Decomposition of the Meat:*

One great cause of the condemnations has been from the defects in the canisters; nature of these defects, *Grant* 350-358——Quantities of preserved meats returned to store at Deptford; occasionally some of them were found bad on account of the canisters being broken, *Morice* 789——The canisters surveyed in November 1851 were, many of them, very deeply indented from the pressure of the air; witness is not aware whether they had been injured on board ship, *Brown* 1197-1200——If any canister is observed to be defective or doubtful, it is never shipped, *Davies* 1530, 1531.

2. *Improvements suggested in the Construction of the Canisters:*

It is now under consideration whether any beneficial change can be made in the metal used for the canisters, *Grant* 372-376——Suggestion that the canisters should be made of stronger tin, *Morice* 825, 826——Some improvement might be made in the construction and strength of the canisters, *Brown* 1214——The stouter the canisters are made the better, *Davies* 1504——A contract might easily be made for the supply of canisters, *ib.* 1504. 1519, 1520——Manner in which witness's tins are made at his factory in Australia; the tins, partly prepared, are sent from this country, *Dangar* 2012-2016——*See* also *Bad Meat. Labels. Size of Canisters.*

Cholera. See *"Apollo" Troop Ship.*

Clarence Yard. Observations of the Committee on the special survey of the store of preserved meats at the Clarence Yard, and the result thereof, *Rep.* ix——A report had been made by the officers of the Clarence Yard that the store in which the preserved meat was kept was offensive, *Grant*, 268——The reason why so much was heard about the meats at the Clarence Yard, and not at the other yards, was that parties belonging to the public press had access to the stores, which they ought not to have had, *Milne* 720, 721——Quantity of preserved meat in store on witness's appointment, in January 1851; examination which took place, when some of it was found very bad, *Pinhorn* 1247-1258——Offensive state of the store in consequence of having so large a quantity of

Report, 1852—*continued.*

Clarence Yard—continued.

of bad meat therein; proceedings of the magistrates in consequence, *Pinhorn* 1259–1262. 1283–1285. 1337–1344.

The preserved meats received under different contracts, as well as that returned into store from foreign stations, are kept separate in the stores, *Pinhorn*, 1305–1309——No large stock of preserved meats was kept in Clarence Yard till 1850, when the first delivery of Goldner's meats was made at this yard; previously to that period it was mostly received from Deptford, *Davies* 1406–1408——Reference to the fact of Sir Edward Parry and the storekeeper having been summoned, in August 1851, to appear before the magistrates to answer a complaint with respect to the stores in Clarence Yard, *ib.* 1441, 1446——The greater part of the canisters in store at that time were very offensive indeed, *ib.* 1442–1445.

See also *Curing Establishments*, 3. *Inspection of Provisions*, 2. *Offal. Special Survey.*

Climate. Although there have been condemnations at all the stations, the principal complaints have come from stations where the meat has been in very great heat, or where it had been in cold regions and afterwards exposed to a warmer climate, *Grant* 359——Witness considers that with fair usage his preserved meat would keep for an unlimited period in any climate; witness has lately tried some of his beef which has been preserved 17 years, and found it good, *Hogarth* 2255.——*See* also *Tropical Climates.*

Cole, Henry Roger. (Analysis of his Evidence.)—Paymaster and purser in the Royal Navy, 3091——Was on board the "Apollo" troop ship in 1849; 3092——Embarkation of the 59th Regiment at Cork; the regiment had been located in the immediate neighbourhood of the cholera prior to their embarking, 3093–3096——Victualling of the ship from the Clarence Yard, Portsmouth; proportion of preserved meats with regard to other species of provisions, 3097–3103——Cases of cholera appeared on board the "Apollo" previous to the issue of the preserved meats, 3104–3112——Remarks relative to the issue of preserved meats on board the "Amazon," 3113–3123. 3131–3139——Mode in which the canisters are packed on board ship; frequency of their being indented, 3124–3129.

Impossibility of telling whether the meat is good or not without opening the cases, 3130——Complaints made by the officers on board the "Apollo" of unpleasant smells; this did not arise from the preserved meats, 3140 3144——Order given by the captain of the "Apollo" for all cases of preserved meats to be opened on the upper deck; this order was always acted upon, 3145–3147——The preserved meats are not looked upon with favour by the seamen, 3148–3153——The 59th Regiment, when it was embarked on board the "Apollo," was in a very bad condition as to health, 3154.

Complaints. Although complaints of the preserved meats had been made from time to time, they were not frequent till 1849, *Rep.* v; *Grant* 149, 150. 167–173——Evidence showing that when the contract for 1851 was entered into it was not possible that any complaints of the deliveries upon the contract of 1850 could have been made; impracticability of ascertaining when the meat complained of was delivered, as till 1850 the canisters were not stamped,

Grant,

Report, 1852—*continued.*

Complaints—continued.

Grant 271. 280–293——Numerous complaints made of the preserved meats being unfit for food in 1850, and towards the beginning of 1851; this is attributable to the increased use of preserved meats, *Milne* 543–547——In 1846 there had been no complaints of the meats turning corrupt in a short period, *Morice* 788.

See also *Contracts*, 3. *Mercantile Marine. Offal. Polar Expedition. Special Survey. West India Station.*

Comptroller of Victualling. Extracts of memoranda of the late comptroller of the victualling, dated 29 July 1846, and 29 July 1847, submitted by him to the Board of Admiralty, *App.* 398. 400.

Condemnations of Meat:

1. *Generally.*
2. *Evidence in detail on the Special and other Surveys of Goldner's Meat; per centage Condemned and Rejected.*
3. *Per centage Condemned under Hogarth's Contract.*
4. *Inspection of Preserved Meat for the East India Company, and Result.*
5. *Papers laid before the Committee.*

1. *Generally:*

Up to 1849 the condemnations of preserved meats were not greater than the condemnations of other species of provisions, *Rep.* v; *Grant* 167–173——After the business with Goldner, the Admiralty entered into contracts with Mr. Gamble and others; the whole of the meat sent in has been rejected as unfit for food, *Milne* 560–562. 570–574——There is very little difference between the proportion of salt meat and preserved meat which keep good; large quantities of salt meat occasionally condemned, *Ede* 1075–1089. 1139–1142. 1148–1151.

2. *Evidence in detail on the Special and other Surveys of Goldner's Meat; per centage Condemned and Rejected:*

Statement of the amount of Goldner's preserved meat condemned in 1851, which had been delivered under the contract of 1850, at Deptford, Plymouth, and Portsmouth, and at the depôts at Malta, Hong Kong, and the West Indies, *Grant* 56–75——Quantity that was returned to the several yards as condemned and rejected in 1851; *ib.* 131. 198 *et seq.*——Evidence in detail stating the whole quantity of meat that has been supplied by Goldner under his various contracts, the quantity issued, and the quantity remaining in store, showing that out of the quantity issued, so far as the examination has proceeded, ninety-five per cent. has been found to be good, one per cent. to contain improper substances, and four per cent. been otherwise condemned, *ib.* 198–207. 226–233. 236–245. 275–297. 302–313——There was no reason to believe that the four per cent. of condemned meat was bad meat originally, *ib.* 208–210——The examination is still proceeding, as the whole of the issues have not yet been returned from the foreign stations, *ib.* 294–296. 302–313.

The

Report, 1852—*continued.*

CONDEMNATIONS OF MEAT—continued.

2. *Evidence in detail on the Surveys of Goldner's Meat, &c.*—continued.

The surveys of preserved meats took place at all the victualling depôts; remarks as to the quantities condemned, *Milne* 719-734—Special survey of Goldner's meats in store in November 1851, and rejection of upwards of 2,400 canisters more or less in a state of decomposition; no improper substances were discovered, *Pearn* 944-953——The 2,400 canisters condemned in November 1851, witness considers the principal part had been returned from ships, *ib.* 985, 986——Quantity of preserved meat condemned abroad from the 20 July 1848 to 29 January 1851; the whole of this was replaced by the contractor, *Ede* 1085-1089. 1133, 1134.

Evidence relative to the survey of the meats delivered from Mr. Goldner, which took place in April 1851, at which about 75,000 lbs. was rejected, *Pinhorn* 1263-1282. 1286, 1287. 1310-1316——Difficulty in the way of deciding whether the meat which was condemned was delivered under the contract of any particular year, as previously to 1850 the canisters were not labelled, *Davies* 1459-1471——Witness would say, from the appearance of the whole of the canisters, that, with the exception of from eight to ten, in which things were found that were not very pleasant, they were all good and fit for use at one time, *ib.* 1472-1474.

3. *Per centage Condemned under Hogarth's Contract:*

Very few canisters of Hogarth's meats have been condemned; no improper substances have been found in them, *Davies* 1524-1527——Evidence relative to the contracts entered into by witness for the supply of preserved meats to the navy; the contract of 1850 was made by Mr. Powell, as witness's agent; the contract of 1851 was in witness's name, *Hogarth* 2106-2136——The total quantity of preserved meat supplied by witness for the use of the navy in 1850 and 1851 is 550,020 lbs.; out of this the quantity condemned as being bad was 517 lbs., *ib.* 2137, 2138——Particulars of those condemnations, and letters from the Admiralty, announcing the deductions made for condemned meats amount to 16 *l.* 3 *s.* upon the gross sum of 16,785 *l.* *ib.* 2138-2146.

4. *Inspection of Preserved Meat for the East India Company, and Result:*

About five or six years ago witness did duty for the inspector of the East India Company's ships for twelve months on account of the inspector's illness, *Selfe* 1782-1784——Witness had occasion to inspect a large quantity of provisions, and, in some instances, condemned a great many of them, *ib.* 1782——The reason of their condemnation was in consequence of a very large portion of vegetables being mixed with the meat, *ib.* 1785. 1811-1814——They were English provisions, which had been sent out and purchased in India for the troops on the homeward voyage, *ib.* 1785-1788——Estimated proportion of the preserved meat witness condemned while he inspected for the East India Company, *ib.* 1891-1906. 1909-1917. 1931, 1932——Proportion of the meat that has been brought home from India that has been condemned; that found to be good is reissued, *ib.* 1892. 1897-1902.

5. *Papers*

Report, 1852—*continued.*

Condemnations of Meat—continued.

5. *Papers laid before the Committee :*

Statement showing the condemnations which have taken place of meats supplied for the use of the navy by Mr. Goldner, made up to the 6th April 1852, *Rep.* x., and *App.* 426——Copy of reports from the officers of Deptford Yard that condemned some meat of Messrs. Moore & Hogarth, in December and January last, at Deptford, *App.* 422——Return showing the quantity of preserved meat furnished by each contractor or manufacturer, and the quantity rejected or condemned; the manufacture of each since the year 1844 inclusive, *ib.* 427.

See also "*Amazon*," H. M. Ship. "*Apollo*" *Troop Ship. Arctic Ships.* "*Arrogant*," H. M. Ship. *Canisters*, 1. *Climate. Contracts*, 5. *Foreign Stations. Green*, Mr. *Inspection of Provisions*, 2. *Medical Comforts. Moir*, Mr. *Penalties. Special Survey. Tropical Climate.*

Contracts :

1. *Generally.*
2. *Manner in which the Contracts for Preserved Meats are framed and prepared; Alterations made therein between* 1844 *and* 1850.
3. *Particulars relating to the Contracts entered into with Mr. Goldner.*
4. *Contracts entered into with other Parties.*
5. *Papers laid before the Committee.*

1. *Generally:*

Observations of the Committee on the framing and preparation of the contracts, *Rep.* v, vi.——It would be better to take a contract for a period instead of for a quantity, *Milne* 600——Reasons why witness is averse to contracts for provisions; it was on witness's recommendation that the system of contracts was given up by Mr. Green, *Selfe* 1959-1968.

2. *Manner in which the Contracts for Preserved Meats are framed and prepared; Alterations made therein between* 1844 *and* 1850 :

Opinion of the Committee that it does not appear that, so far as the present enlarged contracts tend to security, anything further can be done than is done, *Rep.* vi——When the stores are reduced below a certain amount, witness submits for consideration whether such new contracts shall not be entered into for making up the deficiency as may appear necessary, *Grant* 8, 9——The terms of the contracts are determined by the Board, and the contracts are prepared by what is termed the contract department of the Admiralty, *ib.* 12–15. 22–25——The conditions in the contracts of 1850 and 1851 were more stringent, and the detail more complete than it had been before, *Grant*, 26; *Milne*, 502–504; *James*, 2560–2562. 2578.

In the contracts for the salt beef and pork there is a warranty for twelve months; witness is not aware of a single instance in which it has been necessary to call upon a salt meat contractor for penalties, *Milne* 777–779——In ordinary cases

Report, 1852—*continued.*

CONTRACTS—continued

2. *Manner in which the Contracts for preserved Meats, &c.*—continued.

cases there is a great sameness in the contracts for navy stores, *James* 2600–2611——The contracts for preserved meats are as stringent as it is possible for words to make them; they sufficiently fulfil all intentions; no advantage would be gained by additions, *ib.* 2610–2614.

3. *Particulars relating to the Contracts entered into with Mr. Goldner:*

Observations of the Committee as to the contract of Goldner being put an end to in 1851, in consequence of the numerous complaints and the large condemnations of the supplies of 1850 and 1851, *Rep.* v——Goldner's contract for 1850 was for 500,000 lbs., at about 5 *d.* per lb. on the average; the expense of the smaller canisters is rather more than that of the larger ones, *Grant* 76–79——The complaints against the preserved meats supplied by Mr. Goldner were not considered sufficient ground to exclude him from the contract of 1850, *Milne* 553, 554——The circumstances complained of were reported to Mr. Goldner, and attributed to accident, *ib.* 553——At the time of the contract for 1851 being entered into with Mr. Goldner, witness is not aware that there were any complaints against the meat supplied under the contract of 1850, *ib.* 599, 600.

Opinion that Mr. Goldner had no political influence whatever in obtaining his contracts, either under the former Board or the late Board; the only wish of the Admiralty was to do what they best could for the good of the service, *Milne*, 601, 602——Circumstances attending the private contract entered into with Mr. Goldner for a further supply of meat in 1851, *James* 2579–2582. 2637–2638; *Leyburn* 2778–2780——It is the usual practice of the Victualling Department to renew contracts with existing contractors, provided they have satisfactorily performed the terms of their former contracts, without public advertisements, *Leyburn* 2779, 2780.

4. *Contracts entered into with other Parties:*

Names of other parties besides Goldner who have sent in specimens of preserved meats, and names of those who have had contracts, *Grant* 151–154——Generally speaking the meats supplied by these parties have turned out to be as objectionable as Goldner's, *ib.* 155——Evidence relative to the failure of the compliance with the contracts by the contractors who took the contracts after Goldner's contract was cancelled, *ib.* 214–216. 220–225. 234, 235——Witness has sent in many contracts for supplying the navy, for Mr. Cooper; there never was a canister sent back whilst witness was with him, *Best* 2410–2415.

5. *Papers laid before the Committee:*

Copy of contract with Mr. S. Goldner for the supply of preserved meats, dated 2 May 1850, *App.* 345–350——Copy of contract with J. Gillon, dated 26 April 1850, *ib.* 351–355——Copy of contract with Messrs. H. & F. Powell, dated 16 May 1850, *ib.* 356——Copy of contract with S. Goldner, dated 29 January 1851, *ib.* 362——Copy of contract with Mr. S. Goldner, dated 28 Dec. 1844 *ib.* 417——Returns showing the date and terms of all contracts for preserved meat for the use of Her Majesty's navy, with Goldner; also

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CONTRACTS—continued.

5. *Papers laid before the Committee*—continued.

also the quantities issued since the commencement of the above contracts, specifying the quantities fit for use, as well as the quantities either condemned or returned into store as unfit for use, from any of Her Majesty's stores or ships, whether at home or abroad; complaints, when first made, and whether, after such complaints, further contracts were entered into with the same parties; whether these meats were issued to the Arctic voyagers; whether Captain Austin's stores were examined and found bad, and if so, were they served from Goldner's contract; of the quantity of cases, if any, the contractor has been allowed to withdraw from Her Majesty's stores after having supplied the same, stating how long such cases had been in store, *App.* 430.

See also *Arctic Ships. British-cured Meat*, 1. *Canisters. Complaints. Condemnations of Meat*, 2. 3. *Curing Establishments*, 1. 2. 3. *Goldner*, Mr., 1. *Green*, Mr. *Indemnification from Loss. Inspection of Provisions*, 2. *Offal. Penalties. Prices of Meat. Quality of Meat. Revision of Contracts. Running Contracts. Salt Provisions*, 1. 2. *Samples. Size of Canisters. Sureties of Contractors. Tenders. Victualling Department, Navy.*

Convict Ships. In the convict ships in which witness went out the provisions were very good, and good health was preserved, *M'Kecknie* 1621–1633.
See also *Medical Comforts.*

Cooper, Mr. Supply of preserved meat for the Arctic expedition by a person named Cooper; rejection of a portion of these meats, as it was doubtful whether they would keep, *Brown*, 1217–1221.——*See* also *Contracts*, 4. *Green*, Mr.

Cost of Manufacture. Remarks of the Committee as to the cost of manufacture in the event of Government undertaking the preparation of their own meats, *Rep.* xvi, xvii.——*See* also *Curing Establishments*, 3.

Cremill Point. Amount of provisional condemnations by special survey at Cremill Point, *Milne*, 727.

CURING ESTABLISHMENTS:

1. *Generally.*
2. *How far there would be any Advantage in having a Government Inspector at the Factory of the Contractor.*
3. *Recommendations that the Meat should be manufactured in the Government Yards.*
4. *Papers laid before the Committee.*

1. *Generally:*

The meat received from Galatz under Mr. Goldner's contract has been as good as it was previous to the removal of his establishment from England, *Ede*, 1116–1130——Capability of witness's factory in Australia to supply a large quantity of preserved meat; if the Government thought of preserving in the colony, witness would gladly sell the establishment altogether, *Dangar*, 2017–2025——Opinion that London is a bad place for preserving meat, there is

Report, 1852—*continued.*

Curing Establishments—continued.

1. *Generally*—continued.

is so great a temptation to roguery, and the meat is injured by the over-driving of the beasts, *Moore*, 2319-2321——The establishment should be situate in a part of the country where the beasts will not be overdriven, and where they could be slaughtered coolly and quietly, *ib.* 2364, 2365——One of the conditions of the contract entered into with Mr. Goldner was, that the meat should be manufactured in the United Kingdom; this was not complied with, as it was manufactured at Galatz, *Leyburn*, 2797-2803.

2. *How far there would be any Advantage in having a Government Inspector at the Factory of the Contractor:*

The contracts show that a power of entry into the manufactories of the contractors of preserved meats by their appointed agent or officer is given to the Commissioners of the Admiralty Board, in order to ascertain whether the process of preserving is in every respect conformable to the conditions of the contract, *Rep.* vi, vii——Opinion of the Committee that this power has not been generally acted upon, *ib.* vii——Remark of the Committee that this power does not seem to be wholly free from objection; doubts as to whether such power may not be liable to shift the responsibility from the contractor, *ib.* vii, viii——Although there was a power of inspection of the preserving contained in the contract entered into with Mr. Goldner, it was never acted upon, *Grant*, 246-254; *Milne*, 582-588——Although by the terms of the contract an inspector may be sent to the factory, no inspector has been sent to Galatz, as it would have been found inconvenient, *Grant*, 363-371. 377-384. 393——An inspection has taken place latterly by the consul at Galatz, *ib.* 366-371.

There was no inspection of the preserved meat factories previous to 1850; officer employed in the inspection of the preserved meat factories since that period, *Milne* 518-524. 691-693——Doubts as to whether it would be expedient to keep any fixed person at those establishments, as it might lead to the inspection being carelessly performed on receiving the stores into the yards, *ib.* 518. 582. 694, 695——The preservation of Goldner's meat being carried on at Galatz, and the lowness of the terms of the contract, did not, in witness's opinion, render an inspection of the process of manufacture necessary, *ib.* 528——Detail of the process employed in preserving meat; no effectual inspection could be carried on during the process, *ib.* 626-630.

Recommendation that there should be a Government officer to inspect the curing at all preserving establishments, *Morice* 822-824. 827-832——Risks attending the taking of contracts for preserved meats at a great distance from home; impossibility of an efficient inspection abroad, *ib.* 857-860——Objection to the contractor's factory being placed under the superintendence of a Government inspector, as it would take off all responsibility from the contractor, *Ede* 1103. 1163-1170; *Leyburn* 2801.

3. *Recommendations that the Meat should be Manufactured in the Government Yards:*

Recommendation of the Committee that preserved meats should be manufactured for the future in the Government yards, or wherever Government shall

Report, 1852—*continued.*

CURING ESTABLISHMENTS—continued.

3. *Recommendations that the Meat, &c.*—continued.

select as the best locality for their establishments, *Rep.* xv, xvi. xix——Conveniences which the several dockyards possess for carrying out the proposed plan of Government preparing their own meats, *ib.* xviii——The expense incidental to the creation of such establishments seems to present no sufficient reason for further delay, *ib.*——After witness's experience, he would say the present plan is not a good way of getting fresh meat for the navy, *Grant* 360. 394.

Opinion that if the use of preserved meats is to be continued in the navy, it would be better for the Government to have a manufactory of their own; there would be no difficulty; it is not an expensive process——*Grant* 176. 361, 362; *Milne* 615-619. 663-666; *Morice* 878-894. 901, 902; *Ede* 1100. 1105-1111. 1161, 1162; *Davies* 1477-1492. 1505. 1508-1514; *Moore* 2311-2364; *Best* 2471, 2472——Witness has submitted for the consideration of the Admiralty, that it would be desirable to manufacture these meats ourselves instead of going to a contractor for them, *Grant* 394-396——Contracts have necessarily been entered into for the supply of preserved meats since witness gave this counsel, in order to keep up the supply till the Admiralty determines the point; nature of the contracts which have been entered into, *ib.* 397-404——Estimated expense of fitting up an establishment for preserving meat for the navy, *Milne* 630-632. 674-678; *Morice* 878-894. 901, 902; *Dangar* 2009-2011.

Witness is not acquainted with the cost of preserving meat, but has no doubt the Government could cure it as cheaply as the contractors, *Morice* 852-856——Necessity for experiments as a preliminary step to the manufacture of preserved meat in the Government yards, *Pearn* 1021-1024——Manufacture of flour and buiscuit at the Clarence Yard, Portsmouth; satisfactory condition thereof, *Pinhorn* 1385-1388; *Davies* 1398-1400——The only suggestion witness can offer for remedying the evils would be, that there should be some person appointed to inspect the meat, or else that the Government should take into their own hands the preparation of it, *M'Kecknie* 1598-1600——Witness does not see that having an inspector need in any way interfere with the responsibility of the contractor, *ib.* 1601-1604——But witness would prefer the Government taking it into their own hands, *ib.* 1604——Opinion that at such an establishment as the Clarence Yard the expense would not be great; facilities already there for carrying on such a work, *M'Kecknie* 1605-1610.

4. *Papers laid before the Committee:*

Correspondence relative to the mode of cure and preparation of preserved meats in Mr. Goldner's manufactory at Galatz *App.* 390——Copy of report of Mr. Grant to the Board of Admiralty, of the statement made by Mr. Goldner's workman, in the presence of the solicitor of the Admiralty, as to Goldner's character, and the manner in which his business at Galatz was conducted, *ib.* 396.

See also *Bread.* *Cost of Manufacture.* *Prices of Meat.*

Report, 1852—*continued.*

D.

Damage to Canisters. See *Bad Meat.* *Canisters,* 1. *Size of Canisters. Storage and Stowage.*

Dangar, Richard Carey. (Analysis of his Evidence.)—Merchant, and importer of Australian preserved meats; resides in the city of London, 1972, 1973——Evidence relative to witness's preserved meat factory at Newcastle, Australia; importation into this country and supply of shipowners therewith, 1973-1995——Price charged by witness for his preserved meats in 1850, and at the present time, 1996-1999——The small size, or 6 lb. canisters, are the most advantageous and convenient, 2000-2003——The process is not so surely carried on with large pieces of meat, 2004——The process of preservation is very simple, and easily learnt, 2005-2008——Expense of constructing a factory for the preservation of meat; the outlay necessary for buildings and machinery is not very considerable, 2009-2011——Manner in which witness's tins are made at his factory; the tins, partly prepared, are sent from this country, 2012-2016——Capability of witness's factory to supply a large quantity of preserved meat; if the Government thought of preserving in the colony, witness would gladly sell the establishment altogether, 2117-2025——Possibility of preserving meat at a low cost in Australia, as the fat is melted for tallow, 2026-2031. 2078. 2096-2098——Statement as to the price of cattle in Australia, 2027. 2036, 2037.

Witness's preserved meat has been subject to a test of four years and found good, 2032-2035——Detail of the process of preserving meat adopted by witness at his factory in Australia, 2040-2050——Opinion that two months after preservation is the best time for testing preserved meats; testing the meat immediately after preservation is not sufficient, 2051-2054. 2062-2064——Large quantities of meat preserved by witness since the establishment of his factory; from three to five per cent. is about the portion which goes bad, 2055-2061. 2065-2074——Difficulty of defining what is offal; all that is considered offal is excluded from witness's preserves, 2075-2077——Impossibility of preserving meat properly if it is not fully cooked, 2079-2086——Opinion that the mode of preserving meat, termed Goldner's process, is superior to any other, if properly carried out, 2086——Evidence showing the capabilities of Australia to supply large quantities of preserved meats, 2087-2094——It is witness's belief that preserved beef cannot be produced at a lower rate in any other country than Australia, 2095-2098.

Dangar, Mr. See *Australian Meat.*

Dantzic Meat. See *Salt Provisions,* 1.

Davies, John. (Analysis of his Evidence.)—Master-attendant at the Clarence Yard, 1395, 1396——Witness's duty is to superintend the receiving of all the stores connected with the establishment, 1397——The yard is a victualling yard, 1398——The manufacture of biscuit, and of various other things, is carried on there; it contains a store of meats, which are served out, both salt and preserved meat, for the navy, 1400——When preserved meats are received it is witness's duty to inspect them; for this purpose witness is associated with the storekeepers, 1401, 1402——Preserved meat has been in general

Report, 1852—*continued.*

Davies, John. (Analysis of his Evidence)—*continued.*

use as an article of provisions in the navy since the early part of 1847; 1403–1405——No large stock of preserved meats was kept in Clarence Yard till 1850, when the first delivery of Goldner's meats was made at this yard; previously to that period it was mostly received from Deptford, 1406–1408.

In November 1850 a very large delivery, about 50,000 lbs., was made from Mr. Goldner into the stores at Clarence Yard, 1409——Nature of the examination of this delivery, 1410——The whole of this delivery was received as good and fit for Her Majesty's service, 1411——The next portion of the contract of 1850 was delivered in the spring of 1851; 1412, 1413——Upon inspection this meat was found not to be nearly so good as that delivered in 1850; description of the appearance of the meat; witness was decidedly of opinion that it was not according to the contract, 1414–1423——A report was made to the Admiralty on this subject, 1424——On this the Government immediately ordered a special survey, which took place in May 1851; the result of this survey was a rejection of the whole of Goldner's meats in store, 1425–1429——Mr. Goldner was required to remove it; particulars relative to the removal of 2,000 canisters at this time, 1430–1440.

Reference to, the fact of Sir Edward Parry and the storekeeper having been summoned, in August 1851, to appear before the magistrates to answer a complaint with respect to the tores in Clarence Yard, 1441. 1446——The greater part of the canisters in store at that time were very offensive indeed, 1442–1445——A considerable survey took place at the end of the year 1851, when every canister was ordered to be opened, a report to be made of what was good, and the bad to be condemned to be thrown away; result of this survey, 1447–1456.

Some of the meat in the canisters of the most ancient date were found to be very good indeed; in some instances the meat was of a better description than that more recently supplied, 1457, 1458——Difficulty in the way of deciding whether the meat which was condemned was delivered under the contract of any particular year, as previously to 1850 the canisters were not labelled, 1459–1471——Witness would say, from the appearance of the whole of the canisters, that, with the exception of from eight to ten, in which things were found that were not very pleasant, they were all good and fit for use at one time, 1472–1474——At the time Goldner's agent took away the 2,000 canisters, he was requested to take away the whole, and refused to do so, 1475——Supposing the supply of preserved meats to be continued, witness is decidedly of opinion that the Government ought to manufacture their own preserved meat, 1477–1492. 1508–1514——There would be no difficulty in doing this; probable expense thereof, 1485–1492. 1505.

It is very desirable to furnish preserved meat as part of the rations to the seamen of the fleet, 1495, 1496. 1505——There is no doubt that the present scale of quality of the provisions of all kinds issued to the navy is better than formerly, 1499——Opinion that the meat ought never to be packed in larger canisters than 6 lbs, 1499–1503——The stouter they make the canisters the better, 1504——A contract might easily be made for the supply of canisters, 1504. 1519, 1520——Precautions which are now taken to prevent any meats which may be bad from being issued, 1515–1518——Explanation relative to the

Report, 1852—*continued.*

Davies, John. (Analysis of his Evidence)—*continued.*

the distribution of the meat that was found to be good on the survey when every canister was opened, 1521–1523——Very few canisters of Hogarth's meats have been condemned; no improper substances have been found in them, 1524–2527——Injury done to the large canisters of meat by packing them in large hogsheads, 1527–1529——Substitution of cheap cases in lieu of hogsheads, at witness's suggestion, 1527–1529. 1532–1535——If any canister is observed to be defective or doubtful, it is never shipped, 1530, 1531.

Decayed Meat. The causes of the decay of the preserved meats is unknown, and cannot be discovered, *Milne* 560–562.

Decomposition of Meat. See *Canisters. Hogarth,* Mr. *Inspection of Provisions,* 1. *Moir,* Mr. *Size of Canisters. Storage and Stowage. Unsound Meat.*

Depôts. All the depôts are supplied with preserved meats from the Deptford Yard, *Ede* 1031–1033.

Disinfecting Meat. Mode of disinfecting food by means of the use of charcoal, *Best* 2445.

E.

East India. Meats are frequently purchased in India for the ships, these meats having been sent out from this country; inspection which these meats undergo before they are put on board ship, *Selfe* 1892. 1909–1917.

East India Company. See *Condemnations of Meat,* 4.

Ede, Edward. (Analysis of his Evidence.)—Assistant-storekeeper at the Deptford Yard, 1025——All the victualling stores come under witness's inspection, and among them the preserved meats, 1026–1029——Large quantities of preserved meats supplied to sea-going vessels of late, 1030——All the depôts are supplied with preserved meats from the Deptford Yard, 1031–1033——Nature of the survey of preserved meats, usually carried out on their being received into store, 1034–1039——Inspection of the preserved meats in store at Deptford, in May 1851, when the officers of the "Fisgard" were associated in the survey; the contents of the canisters opened were very good in quality, 1040–1043——Special survey of Goldner's preserved meats in November 1851; condemnation of 2,400 canisters from decomposition; the whole of these were returned stores from on board ship, 1044–1071. 1099——The only improper substances ever discovered in the canisters were heart, kidney, and tongue, which, according to the words of the contract, are offal, 1051–1058.

Explanation as to the issue of the meats found good, on the inspection in November 1851; impossibility of their being used for the purpose of victualling the navy, 1059–1069——There is very little difference between the proportion of salt meat and preserved meat which keeps good; large quantities of salt meat occasionally condemned, 1075–1089——Quantity of preserved meat condemned abroad from 20 July 1848 to 29 January 1851; the whole of this was replaced by the contractor, 1085–1089. 1133, 1134——Impossibility of ascertaining to what deliveries the condemned meats belonged,

Report, 1852—*continued.*

Ede, Edward. (Analysis of his Evidence)—*continued.*

as the labels were not dated till 1850; 1090-1099——The only mode of preventing the condemnation and waste of preserved meats, is to carry on the manufacture on Government premises, under the inspection of Government officers, 1100.

No alteration could be made in the terms of the contracts with regard to the time of delivery, or the time over which they should run, that would be beneficial, 1101, 1102——Objection to the contractor's factory being placed under the superintendence of a Government inspector, as it would take off all responsibility from the contractor, 1103——Witness knows of nothing that can be done to make the mode adopted of insuring that the meat contracted for shall be perfectly sound more efficient than at present, 1104——There would be no difficulty in carrying on the preserving of meats in the Government yards at a small cost, 1105-1111——The first rejection of preserved meats took place on the 19th September 1850, in consequence of short weight and inferior quality; this was under Mr. Powell's contract, 1112-1115. 1121. 1125. 1131-1133. 1143-1147——The meat received from Galatz under Mr. Goldner's contract has been as good as it was previous to the removal of his establishment from England, 1116-1130——Technically the tongue is considered offal, but practically they are supplied as a delicacy to the captains of ships, 1135-1138.

In the home yards the unserviceable stores are sold; there is no mode of getting rid of the salt meat in the foreign yards except by issuing it to the navy, 1139-1142. 1148-1151——Preference to be given to the foreign-cured meat over the British; the Irish-cured meat has fallen off since the famine in 1846; 1152-1156——Opinion that the navy is better provisioned now than formerly, 1157-1160——Some of the evils complained of might be met by the manufacture of preserved meats in the Government yards, 1161, 1162——A system of superintendence of the manufacture of the meat at the contractor's yard by Government officers would be extremely objectionable, 1163-1167——So long as the system of contract is acted upon, the whole responsibility should be thrown upon the contractor, and very stringent penalties enforced for non-performance, 1168-1170——Responsibility of the receiving officer at the Government yards, 1168-1172.

Edwards, Mr. See *Potatoes,* Preserved.

Emigrant Ships. A great deal of preserved meat is now used in emigrant ships, and witness has not heard it complained of, *Grant* 427-429.

"Erebus," The. See *Arctic Ships.*

Estimates. It is part of the duty of witness's office to make the estimates with regard to the expenses of victualling the sailors, *Grant* 44——In 1848 the expense was 17*l.* 5*s.* 4*d.* per man; the amount per head at this time is about 15*l.*; the expense varies according to the price of provisions, *ib.* 45-49.

Examination of Provisions. See *Inspection of Provisions. Special Survey. Survey of Meats.*

Report, 1852—*continued.*

Expenditure. The expense of victualling the navy has decreased of late years; it is not possible to procure better provisions than those issued to the sailors, *Milne*, 701-704. 717, 718.——*See* also *Provisions.*

Extra Allowances. See *Salt Provisions*, 3.

F.

Fat Meat. There is more fat in the Australian meat than in any other witness has seen; this no doubt assists to keep the meat, *Selfe* 1858. 1861, 1862.

Fermentation. In the event of fermentation having commenced in the canisters, by reboiling it could be stopped, yet the meat, though it would keep, would never be good, *Hogarth* 2239, 2240.——*See* also *Vegetables.*

Foreign Provisions. The victualling department of the navy have had no experience of the meat of the countries on the Danube and the Black Sea, except with regard to preserved meat, *Grant* 490-492.——Observations on the salt provisions for the navy; superiority of the foreign-cured provisions supplied for naval service, more particularly the Dantzic and Hamburg provisions, *Milne* 760, 761. 767-774; *Morice* 861-876.

See also *British cured-Meat*, 2. *Salt Provisions*, 1.

Foreign Stations. Supplies are sent out from the victualling department of the navy for troops abroad, on requisition from the Treasury, *Grant*, 5——Nearly the whole amount of preserved meat received at Deptford in the year 1850 was issued for foreign service, *ib.* 89-93.——Remarks relative to the supply of provisions to be obtained from foreign stations, *Milne* 634, 635——The military upon foreign stations draw small supplies of all provisions from the naval stores, *ib.* 754——In consequence of the wholesale condemnations of the preserved meats, and the complaints made thereof, general orders were sent to all foreign stations in September 1851, for the return of all preserved meats, *Leyburn* 2805, 2806.

See also *Condemnations of Meat*, 2. *Issues of Preserved Meats. Salt Provisions*, 2.

G.

Galatz. See *Curing Establishments*, 1.

Gamble, Mr. See *Condemnations of Meat. Green*, Mr.

Garbage. With regard to the statement that garbage of the most filthy description has been found in the canisters, witness has never seen, except in one instance at Plymouth, any garbage at all, and that was a kidney, *Grant* 194-197.

See also *Condemnations of Meat*, 2. *Intestines of Animals. Offal.*

Gelatine. See *Glue.*

Report, 1852—*continued.*

Gillon, Mr. Remarks relative to the contract taken by Mr. Gillon, in 1843; failure of Mr. Gillon, in consequence of an extensive quantity of preserved meat being required, and his not having time to prepare it, *Leyburn* 2739–2749——On Mr. Gillon stating that it was impossible to prepare the meat by the time reqired, application was made to Mr. Goldner, who accepted the order, and supplied the meat in large canisters, *ib.* 2747–2751.

See also *Contracts*, 5.

Glue. Witness once inspected a 6lb. canister of preserved meat offered him; small portion of meat contained therein, the remainder being a kind of glue, a particular preparation made for the purpose of filling up preserved meat canisters; it is not gelatine, *Best* 2449–2459.

Goldner, Mr.:

1. *Approval of Goldner's Plan of Preserving Meat.*
2. *Particulars relative to the withdrawal of a certain quantity of Meat from the Clarence Yard by Mr. Goldner.*
3. *Opinion that Mr. Goldner did not obtain the Contract through political influence.*

1. *Approval of Goldner's Plan of preserving Meat:*

Before the contract was entered into with Goldner the opinion of several chemical gentlemen was taken, and they all agreed that Goldner's plan of preserving the meat was the best; that is his original plan, before the meat was ordered to be preserved whole and in large canisters, *Grant*, 212, 213. 217–219——If the process is fairly and properly carried out, Goldner's process of preserving meat is the best; detail of the process, *Grant* 416–426; *Morice* 795, 796; *Dangar* 2086—— Favourable reports have been received of Goldner's preserved meats, whilst others have been very unsatisfactory, *Milne* 613, 614.

The preserved meats which witness has had from Goldner were of various kinds; they were only for the use of the passengers; they consisted of beef, fish, fowls, &c.; they were manufactured in England, and reckoned the best in London, *Selfe* 1883–1886——Nothing was ever found in Mr. Goldner's canisters unfit for food, *ib.* 1887, 1888——Opinion that Goldner's process of preserving meat is far preferable to any of the other processes adopted; detail of Goldner's process, *Moore* 2280–2311. 2352–2357. 2368–2370—— From witness's inquiries into the modes of preserving meats, it his opinion that there is no great fault in the scientific principle which has been acted upon; but the failures which have occurred are to be ascribed rather to faults in the meat which has been put up than to anything thing else, *ib.* 2312–2315.

Witness does not approve of the practice of Mr. Goldner, though he does of his process of preservation, *Moore* 2339——For ten years Mr. Goldner's meats gave every satisfaction; his whole failure has been from the enormous amount of his contract, and the almost impossibility of his performing it, *ib.* 2350, 2351——For five years the meat supplied by Mr. Goldner was unexceptionable, *Leyburn*, 2796—— Letters from Mr. S. Goldner, dated 21 February, 9 and 19 June, 11 August, and 1 November 1851, *App.* 408–417.

2. *Particulars*

Report, 1852—*continued.*

GOLDNER, Mr.—*continued.*

2. *Particulars relative to the withdrawal of a certain quantity of Meat from the Clarence Yard by Mr. Goldner.*

Evidence relative to Mr. Goldner having been allowed at one period to withdraw a very considerable portion of his meats from the Clarence Yard, *Grant* 272, 273. 314, 315. 324–328. 332–349——A determination having been subsequently come to to have no further dealing with Mr. Goldner, he was called upon to remove the whole of the meat which had been condemned; this he refused to do, as his intention was to replace the meat he had taken away with newer meat, *ib.* 272–274. 332–349——Witness does not consider that any favour was shown to Goldner by allowing him to take away a portion of the meat supplied to the Clarence Yard; how far he was allowed by the contract to take the meats away if found to be bad, and replace them, *ib.* 324–328. 332–249——Examination of the meats in store supplied by Mr. Goldner, by Mr. Henry Cavaliero; quantity selected by him as unsound, and taken away by Mr. Goldner; this took place in April 1851, *Pinhorn* 1344–1364——At the time Goldner's agent took away the 2,000 canisters, he was requested to take away the whole, and refused to do so, *Davies*, 1475.

3. *Opinion that Mr. Goldner did not obtain the Contracts through political influence.*

It has never come to witness's notice that Mr. Goldner got the contract through any influence, either electioneering or parliamentary, *Grant* 329–331——There is no doubt that the object of the Government, in going to Galatz, was to get the meat cheaper than they could procure it in England, *ib.* 364. 377, 378——Denial that Mr. Goldner had any particular favour shown to him, or that he had any interest at the Admiralty, *James* 2651, 2652——Witness is not aware that Mr. Goldner had any political influence at the Admiralty, *Leyburn* 2793–2795.

See also *Arctic Ships.* *"Arrogant,"* H. M. Ship. *Bad Meat.* *Clarence Yard.* *Condemnations of Meat*, 1. 2. 5. *Contracts*, 3. 4. 5. *Curing Establishments*, 1. 4. *Gillon*, Mr. *Green*, Mr. *Indemnification from Loss.* *Inspection of Provisions*, 1. 2. *Mercantile Marine.* *Offal.* *Penalties.* *"Plover,"* The. *Prices of Meat*, 1. *Process of Preserving.* *Rejection of Meat.* *Running Contracts.* *Short Weight.* *Special Survey.* *Sureties of Contractors.* *Survey of Meats.* *Tenders.*

Government Curing Establishment. See *Curing Establishments*, 3.

Grant, Thomas Tassell. (Analysis of his Evidence.)—Comptroller of the Victualling department of the navy; has held the office since January 1851; 1, 2——This department is a branch of the naval administration, acting under the Board of Admiralty; the Admiralty have the entire control over the department in every respect, 3. 7——The duties of the victualling department of the navy extend to the victualling of Her Majesty's men-of-war and the transports, 4——Supplies are also sent out for troops abroad, on requisitions from the Treasury, 5——And the packet service is also victualled to a certain extent,

Report, 1852—*continued.*

Grant, Thomas Tassell. (Analysis of his Evidence)—*continued.*

extent, 6——When the stores are reduced to a certain amount, witness submits for consideration whether such new contracts shall not be entered into for making up the deficiency, as may appear necessary, 8, 9——The periods of taking stock depend entirely upon the issues, 10, 11.

The terms of the contracts are determined by the Board, and the contracts are prepared by what is termed the Contract department of the Admiralty, 12–15. 22–25——Reasons why the stock of preserved meats has been reduced within the last twelve months, 16–21——The terms of the contracts for preserved meats have been very much altered from what they were formerly, 26——The contracts of 1850 and 1851 have been made more stringent, 26——Since witness has been in office, when any deficiency or condemnation has taken place he has always reported it to the Admiralty, and submitted whether the contractor should not be fined for having failed in the performance of his contract, 27–29——Sureties are required in every case of a contract for the navy, 30–33.

The navy victualling yards at the different arsenals are under witness's direction; the reports from them are sometimes made to witness's department and sometimes directly to the Admiralty, 34–36——Condemnations are filed in witness's office, 37——The yard officers, under the captain superintendent of the yard, are the receiving officers, and inspect all the provisions delivered at the different establishments, 38——In the case of preserved meats a special survey was held in the early part of 1851; special officers in conjunction with the yard officers were appointed by the Admiralty, 38, 39——This was done in the three principal yards of Deptford, Plymouth, and Portsmouth, 40, 41.

It is part of the duty of witness's office to make the estimates with regard to the expenses of victualling the sailors, 44——In 1848 the expense was 17*l.* 5*s.* 4*d.* per man; the amount per head at this time is about 15*l.*; the expense varies according to the price of provisions, 45–49——Statement of the amount of Goldner's preserved meat condemned in 1851, which had been delivered under the contract of 1850, at Deptford, Plymouth, and Portsmouth, and at the depôts at Malta, Hong Kong, and the West Indies, 56–75——Every single ship which was fitted out from either of the three principal yards had a proportion of the preserved meats; it formed a ration to the navy, 69. 126–132. 198 *et seq.*——Goldner's contract for 1850 was for 500,000 lbs., at about 5*d.* per pound on the average; the expense of the smaller canisters, is rather more than that of the larger ones, 76–79.

The meat is always weighed now independently of the tins; formerly it was not so, 80–82——Lately a mark has been put on the canisters to show in what year they are delivered, 85–88——Nearly the whole amount received at Deptford in the year 1850 was issued for foreign service, 89–93——There was in store at Deptford, and not issued, a small quantity under the contract of 1851; 94——It was examined in March 1851, and none of it was found to be faulty, 94–104——On opening some of the canisters of a further delivery in 1851, it was found that pieces of tongue were contained in two of them, 104, 105——A certain quantity was rejected and taken away by the contractor, and not received into store at all, 104–109——After the discovery of this

Report, 1852—*continued.*

Grant, Thomas Tassell. (Analysis of his Evidence)—*continued.*

this offal the whole of Goldner's meat remaining in store at Deptford was examined, and found to be serviceable, and in a good state, 106–109.

Number of cases that are examined upon a contract being delivered, and way in which they are examined, 110–112. 119, 120——After the rejection of the second delivery of 1851 it was determined to put an end to Goldner's contract, and no more meat was delivered under that contract, 113. 133–138——Names of Goldner's sureties; sum for which they were bound; how far they were responsible parties, 115–118——Upon the discovery being made at Deptford, it was suggested that no more preserved meats should be issued from any of Her Majesty's stores, 121——Orders to this effect were also immediately sent out to the foreign depôts; and the whole of the meats then in store and on board ship are being sent home for the purpose of examination, 121–123——The contract of 1851 was made with Goldner before the special examination of the stores of 1850; 124. 133–138——It has been almost invariably the case in all contracts that the lowest tender has been accepted, 125.

Till the year 1846 preserved meats were only issued to the navy as medical comforts, in small canisters, 141–143——In 1831 Sir Edward Belcher asked to be supplied with them; and from that time to 1839 several applications were made for small quantities for ships going upon special services, 144, 145——Even with respect to these medical comforts certain condemnations took place in consequence of the meat being bad, 146–148——But the first serious complaints were not made till the latter end of 1849; 149, 150, 167–173——Names of other parties besides Goldner who have sent in specimens of preserved meats, and names of those who have had contracts, 151–154——Generally speaking, the meats supplied by these parties have turned out to be as objectionable as Goldner's, 155.

Quantity of the preserved meat supplied to the Arctic ships, the "Erebus" and "Terror," which was returned into store, and condemned as unfit for service; parties by whom this meat was supplied; it was bought specially for the purpose, 156–160——Witness attributes the deterioration of the meat supplied to the Arctic ships, the "Resolute" and the "Assistance," to the fact of its having been brought into a warmer climate after having been for some time in the Arctic regions, 158. 161, 162——If the meat is properly preserved there is no reason why the meat should be condemned more from the tropical climates than from more temperate stations, 163——The great defect is that the meat is preserved in too large pieces, and in too large canisters, 164–166. 174——It is now decided to have nothing larger than 6 lb. canisters, 164. 174, 175——From 1844 to 1849 there were no greater condemnations of preserved meats than of other kinds of provisions, 167–173.

It would be advisable to prepare all the preserved meats in the Royal victualling yards in future, 176——It has always been usual, in fitting out Arctic ships or ships sent on voyages of discovery, to supply them with the very best provisions of every description, 177–181. 188, 189——Evidence showing that there is a balance in hand to cover any loss from the condemnation and destruction of Goldner's meats, 182–187——Reference to the statement made by Goldner that many of the canisters were much indented and bruised on their

Report, 1852—*continued.*

Grant, Thomas Tassell. (Analysis of his Evidence)—*continued.*

their voyage from Galatz to England; these canisters were not received either under the contracts of 1850 or 1851; 190, 191——There is no doubt that injury does arise to them after they have left the contractor's hands, from their being stowed away in casks 192, 193.

With regard to the statement that garbage of the most filthy description has been found in the canisters, witness has never seen, except in one instance at Plymouth, any garbage at all, and that was a kidney, 194-197——On the examination of the meats delivered under the contracts of 1850 and 1851, ninety-five per cent. was found good and fit for service, one per cent. having contained actually bad meat or offal, and four per cent. having been otherwise condemned, 198-207. 226-233. 236-245——There was no reason to believe that the four per cent. of condemned meat was bad meat originally, 208-210——It is impossible on the examination of a canister to tell whether it will or will not turn out bad, 211——Evidence showing that the meat supplied by the present contractors, for which a large price is being paid, has not been able to bear the test to which it has been submitted, 211.

Before the contract was entered into with Goldner, the opinion of several chemical gentlemen was taken, and they all agreed that Goldner's plan of preserving the meat was the best, that is, his original plan, before the meat was ordered to be preserved whole and in large canisters, 212, 213. 217-219——Evidence relative to the failure of the compliance with the contracts by the contractors who took the contracts after Goldner's contract was cancelled, 214-216. 220-225. 234, 235——The whole of Goldner's contracts for 1850 and 1851 was made up at Galatz; witness believe he was absent from there for a large portion of the time; the Government had the power of sending an inspector, but no one sent, 246-254.

[Second Examination.]—Witness was present at the special survey which took place at Deptford of Goldner's meat, in May 1851, and also at the special survey at the Clarence Yard; the preserved meats that were then opened were considered perfectly good; there was nothing unfit for human food, 255-269——A report had been made of the officers of the Clarence yard, that the store in which the preserved meat was kept was offensive, 268——Witness did not find anything unpleasant at Deptford Yard, or at the Portsmouth Yard, nor subsequently at Plymouth so far as regards smell, 270——Further evidence showing that when the contract for 1851 was entered into, it was not possible that any complaints of the deliveries upon the contract of 1850 could have been made; impracticability of ascertaining when the meat complained of was delivered, as till 1850 the canisters were not stamped, 271. 280-293.——Evidence relative to Mr. Goldner having been allowed at one period to withdraw a very considerable portion of his meats from the Clarence Yard, 272, 273. 314, 315. 324-328. 332-349.

It is now necessary to examine every canister, either in store or returned from foreign stations, in order to sue the contractor for the value, 273. 296. 314, 315. 324-328——Further evidence in detail stating the whole quantity of meat that has been supplied by Goldner, under his various contracts, the quantity issued and the quantity remaining in store, showing that out of the quantity issued, so far as the examination has proceeded, ninety-five per cent. has been

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Grant, Thomas Tassell. (Analysis of his Evidence)—*continued.*

been found to be good, one per cent. to contain improper substance, and four per cent. been otherwise condemned, 275-297. 302-313——The examination is still proceeding, as the whole of the issues have not yet been returned from the foreign stations, 294-296. 302-313——Explanation relative to the distribution of the meat in those canisters which have been opened and found to be serviceable; impracticability of re-issuing it, as it will not keep after the canisters have been opened, 296. 318-323.

Witness does not consider that any favour was shown to Goldner by allowing him to take away a portion of the meat supplied to the Clarence Yard; how far he was allowed by the contract to take the meats away if found to be bad and replace them, 324-328. 332-349——It has never come to witness's notice, that Mr. Goldner got the contract through any influence, either electioneering or parliamentary, 329-331——Further grounds on which witness forms the opinion that preserving the meat in large pieces and in large canisters is a bad plan, 350-358. 362——One great cause of the condemnations has been from the defects in the canisters; nature of these defects, 350-358——The usage the canisters are subjected to on board ship is also another cause of the decomposition of the meat, and from their being often in contact with salt water, 354. 355——Although there have been condemnations at all the stations, the principal complaints have come from stations where the meat has been in very great heat, or where it has been in cold regions, and afterwards exposed to a warmer climate, 359.

After witness's experience, he would say the present plan is not a good way of getting fresh meat for the navy, 360-394——It is very desirable that fresh meat should be supplied to the seamen; but the best plan would be to manufacture it, and have it put up at one of our own establishments, 361, 362——If meat is supplied in future, it is highly desirable that it should be put up in smaller packages than has been adopted in the last contract, 362——Although by the terms of the contract an inspector may be sent to the factory, no inspector has been sent to Galatz, as it would have been found inconvenient, 363-371. 377-384. 393——There is no doubt that the object of the Government, in going to Galatz, was to get the meat cheaper than they could procure it in England, 364. 377, 378——An inspection has taken place latterly by the consul at Galatz, 366-371.

It is now under consideration whether any beneficial change can be made in the metal used for the canisters, 372-376——Six-pound canisters are to be used in future; these will not be so liable to injury, 374——Formerly only one canister of a delivery was opened; subsequently the inspecting officers were authorised to open as many as they thought proper, 385, 386——There was a condition in treaty paper of the contract of 1850, that the meat should be British-cured; reason for this, 387-392——Witness has submitted for the consideration of the Admiralty, that it would be desirable to manufacture these meats ourselves, instead of going to a contractor for them, 394-396——Contracts have necessarily been entered into for the supply of preserved meats since witness gave this counsel, in order to keep up the supply till the Admiralty determines the point; nature of the contracts which have been entered into, 397-404.

Extract

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Grant, Thomas Tassell. (Analysis of his Evidence)—*continued.*

Extract of a letter from Captain Pullen, approving highly of Goldner's meat that was supplied to some of the Arctic ships, 408–412——High price which was paid for this meat, 410, 411——Supposing the contract system as regards preserved meats to be carried on, witness would decidedly say that the lowest tender should not be taken, 412——The Admiralty has already altered the system, and buy the meats by sample before they are preserved, 412–415——If the process is fairly and properly carried out, witness considers Goldner's process of preserving meat to be the best; detail of the process, 416–426——A great deal of preserved meat is now used in emigrant ships, and witness has not heard it complained of, 427–429.

Explanation in detail relating to the item of over issues or extra issues of salt provisions, which appear very large as regards some of the vessels on the West India station; particular instance of the "Alarm," 430–442. 444–446. 449. 464–467. 483–489——Reason why in the years 1849 and 1850 there was no contract whatever for salt beef, 430——It has generally been considered necessary to have sixteen or eighteen months' supply of salt meat in store, 443. 447–449——In consequence of the late condemnation of preserved meats, there has been a great deal of trouble and difficulty in obtaining a sufficient supply of salt meat to make up the deficiency, 447–448——Objection to what are termed running contracts, 448——During the long period witness has been connected with the victualling department he is not aware of any instance of fault having been found with the contractor for salted provisions; process pursued with respect to the inspection, 450——New test to which the salt provisions have latterly been subjected, 450. 454, 455. 460–462.

Between the years 1848 and 1851 inclusive, contracts have been entered into as regards salted meat with parties abroad, to the amount of about 124,000*l.*, 451, 452——The meat supplied from Hamburgh in particular and the Prussian meat and some of the French meat is quite equal, if not superior, to the meat supplied in the United Kingdom, 453–455. 472—— As regards the American meat, it is of different qualities, 453, 454——How far there are any means of ascertaining whether the salt meat which is received under the English contracts is or is not foreign meat, 458–460——The salt meats delivered under the contracts of 1850 and 1851 have been as fine meats as can possibly be obtained, particularly the Hamburgh meat, 459——The Irish meat has not of late been so fine as it was formerly, 459–462——Running contracts have been discontinued entirely since 1848; 463.

There never was a time when the sailor's allowance was really so good in quantity as it is at the present time; the meat is also of better quality than it was; the expense is less than formerly, 468–472. 476–478——The victualling department of the navy have had no experience of the meat of the countries on the Danube and the Black Sea, except with regard to preserved meat, 490–492——The Hamburgh pork and the Dantzic pork are considered superior to the Irish, 493——The last receipt of French meat is reported to be of very superior quality, and the waste in boiling is comparatively small; this is the case with both the beef and pork, 493–495——The best-looking American meat, that is, the finest grown and the fattest, is the meat that loses the most in boiling, 495——The meat which is fatted in the way

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Grant, Thomas Tassell. (Analysis of his Evidence)—*continued.*

way that beasts are fatted for the sake of obtaining a price boils away to a large amount, 496——The sailors do not prefer the fattest meats, 496.

Grant, Mr. Papers delivered in by Mr. T. T. Grant, *App.* 407——Letter from Mr. T. T. Grant, dated 4 July 1851, *ib.* 416.

Green, Mr. In very few instances has the meat supplied to Green's ships been condemned; it is the best that can be got, *Selfe,* 1789-1792—— It has been obtained from Mr. Gamble and from Mr. Cooper; none has been procured from Mr. Goldner for the last three or four years, *ib.* 1790 ——Green's ships making the voyage to India are not regularly provisioned with preserved meats for the crew; the men generally do not fancy them; they prefer the salt provisions, *ib.* 1815-1817. 1871-1875——The parties with whom witness has dealt most largely have been Messrs. Cooper, Mr. Gamble, and Messrs. Copland & Barnes; there has never been occasion to condemn any of the meats, except in some few instances where they have been mixed with vegetables; number of canisters usually inspected, *ib.* 1821-1835.

Large rounds of beef have been taken that would weigh 20 lbs., and witness has seen them come home again perfectly good, *Selfe,* 1821——Green's ships are not supplied by contract; the best meat is always endeavoured to be obtained, *ib.* 1866, 1867. 1880, 1881——Witness considers that the men on board Green's ships are victualled on a very liberal scale; there are never any complaints; the crews that go out in the vessels mostly come back in the same vessels, *ib.* 1874-1879——The cost of victualling a man is about 9 *d.* per day, *ib.* 1941——Number of Green's ships afloat; number of men and officers, *ib.* 1942-1948. 1952-1958——The scale of victualling is the same as it was twenty years ago, with the exception of lime juice; the scale is very satisfactory to the men, *ib.* 1949-1951.

See also *Contracts,* 1.——*Salt Provisions,* 4.

H.

Hamburgh Meat. See *Foreign Provisions.* *Salt Provisions,* 1.

Heart. See *Offal.*

Hogarth, William. (Analysis of his Evidence.)—Resides at Aberdeen; principally engaged in the salmon fishery, 2099-2102——Witness first commenced the preservation of meats about 1837; 2103-2105——Evidence relative to the contracts entered in by witness for the supply of preserved meats to the navy; the contract of 1850 was made by Mr. Powell, as witness's agent; the contract of 1851 was in witness's name, 2106-2136——The total quantity of preserved meat supplied by witness for the use of the navy in 1850 and 1851 is 550,020 lbs.; out of this the quantity condemned as being bad was 517 lbs., 2137, 2138——Particulars of those condemnations, and letters from the Admiralty announcing the deductions made from witness's accounts, 2138-2146——A considerable portion of the meat condemned arose from the careless and disgraceful usage of the canisters, 2139-2152——Witness never had any of his meats condemned on delivery, therefore witness infers that the injury

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Hogarth, William. (Analysis of his Evidence)—*continued.*

injury to the canisters arose from ill-usage after their being received into store, 2152–2159.

One lot of witness's preserved meat was rejected on delivery, from defective weight; the first contract included the gelatine in the weight; the next contract excluded the gelatine, 2157, 2158——Witness has supplied large quantities of preserved meat to the mercantile navy, and they have been generally approved by the service, 2160, 2161——Opinion that the method of preserving meat can be effectually carried out, so as to insure the crews of ships being supplied with good meat for three years, 2162. 2172——Great advantage which the 6lb. canisters possess over the larger canisters; the size of the canisters is stated in the contracts, and not left to the option of the contractors, 2173–2190.

Superiority of the quality of the preserved meats supplied to the Royal Navy to that supplied to the mercantile service; difference in the price, 2192–2203. 2209. 2224–2227——It is a very rare occurrence that witness has any complaints of his preserved meats supplied for the mercantile service, 2204–2218——Statement of the price charged for the preserved meats supplied by witness to the Royal Navy, 2219–2221——Witness puts in vegetables with the preserved meats when it is ordered; mixing vegetables with the meat does not make any difference in the preservation, 2222, 2223——Witness sends a great deal of salmon to India, which is fully as delicate as meat; he never has any complaints of its not keeping sound, 2228–2230——The system of examination of the meat at the Government Yards is more strict now than formerly; number of canisters opened on delivery; this is a loss to the contractor, as the meats are spoiled when opened, 2231–2238. 2241, 2242.

In the event of fermentation having commenced in the canisters, by reboiling it could be stopped, yet the meat, though it would keep, would never be good, 2239, 2240——Necessity for great care being observed in opening cases for testing; frequency of the appearance being bad from rough usage, 2243–2246——Importance of the canisters of preserved meats being packed and unpacked with great care; frequency of the meat being ruined from rough usage and bad stowage, 2247–2254——Witness considers that, with fair usage, his preserved meat would keep for an unlimited period in any climate; witness has lately tried some of his beef which has been preserved seventeen years, and found it good, 2255——Opinion that a fortnight is sufficient to test preserved meat, 2255–2265——There is no difficulty in preserving the meat in large pieces, and in large canisters; reason of witness being in favour of the use of small cases, 2266–2273.

Hogarth, Mr. Survey which took place at Deptford, on the 8th January 1852, of the preserved meats supplied by Mr. Hogarth; symptoms of decomposition discovered, and rejection of the whole thereof, *Brown* 1201–1203. 1215, 1216——Examination of some of the meats supplied by Mr. Hogarth after being in store five or six months; decomposed state of the meat, *Pinhorn* 1300–1304. 1331.

See also *Condemnations of Meat,* 3. 5.

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I.

Improper Substances. See *Intestines of Animals. Offal.*

Indemnification from Loss. Remarks of the Committee, showing how far the public has been indemnified against loss from the failure of Goldner's contract, *Rep.* ix, x——Statement showing the condemnations which have taken place of meats supplied for the use of the navy by Mr. Goldner, made up to the 6th April 1852, *ib.* x——Debtor and creditor account with Mr. Goldner, *ib.* ——There is a balance in hand to cover any loss from the condemnation and destruction of Goldner's meats, *Grant* 182-187; *Leyburn* 2781. 2807—— It is now necessary to examine every canister either in store or returned from foreign stations, in order to sue the contractor for the value, *Grant* 273. 296. 314, 315. 324-328.

See also *Sureties of Contractors.*

Inspection of Provisions:

1. *Nature of the present Inspection of the Preserved Meats on delivery.*

2. *Evidence as to the Surveys and Inspection of Goldner's Meats on the Complaints of them being frequent; and Result thereof.*

1. *Nature of the present Inspection of the Preserved Meats on delivery:*

Observations of the Committee on the present searching inspection of the preserved meats on delivery, *Rep.* viii, ix——The yard officers, under the captain superintendent of the yard, are the receiving officers, and inspect all the provisions delivered at the different establishments, *Grant* 38——Number of cases that are examined upon a contract being delivered, and way in which they are examined, *Grant* 110-112. 119, 120. 385, 386; *Morice* 799-815; *Ede* 1034-1039; *Hogarth* 2231-2238. 2241, 2242——There are no certain means of telling whether the meat is good or bad, except by opening the canisters, *Grant* 211; *M'Kecknie* 1617, 1618; *Cole* 3130——Instances have occurred of the meat having been inspected and found perfectly sound on its being received into store, but which in six months' time has become bad, *Milne* 727-732——As the provisions are received from the victualling yard, it is never considered necessary to inspect them when they come on board, though the paymaster can order a survey if he thinks proper, but he must give some reason for calling for it, *Smith* 1735-1738——The system of examination of the meat at the Government yards is more strict now than formerly; this is a loss to the contractor, as the meats are spoiled when opened, *Hogarth* 2231-2238. 2241, 2242——Witness considers that the strictness exercised towards Mr. Goldner has been excessive rather than otherwise, *Leyburn* 2783.

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Inspection of Provisions—continued.

2. *Evidence as to the Surveys and Inspection of Goldner's Meats on the Complaints of them being frequent; and Result thereof:*

Inspection of the preserved meats in store at Deptford in May 1851, when the officers of the "Fisgard" were associated in the survey; the contents of the canisters opened were very good in quality, *Ede* 1040–1043——In November 1850 a very large delivery (about 50,000 lbs.) was made from Mr. Goldner into the stores at Clarence Yard, *Davies* 1409——Nature of the examination of this delivery, *ib.* 1410——The whole of this delivery was received as good and fit for Her Majesty's service, *ib.* 1411——The next portion of the contract of 1850 was delivered in the spring of 1851, *ib.* 1412, 1413——Upon inspection, this meat was found not to be nearly so good as that delivered in 1850; description of the appearance of the meat; witness was decidedly of opinion that it was not according to the contract, *ib.* 1414–1423——On this the Government immediately ordered a special survey, which took place in May 1851; the result of this survey was a rejection of the whole of Goldner's meats in store, *ib.* 1425–1429——Mr. Goldner was required to remove it; particulars relative to the removal of 2,000 canisters at this time, *ib.* 1430–1440——Account of canisters opened before the Committee on 6th April 1852, *App.* 428.

See also *Condemnations of Meat. Curing Establishments,* 2. *Green,* Mr. *Moir,* Mr. *Offal. Receiving Officers. Salt Provisions,* 1. *Special Survey. Survey of Meats.*

Intestines of Animals. Circumstances which led to the word "intestines" being added to the description of the parts of an animal that were not to be preserved *Leyburn* 2758–2760.——*See* also *Offal.*

Irish Meat. See *American Provisions. British-cured Meat,* 2. *Salt Provisions,* 1. 4.

Issues of Preserved Meats. Upon the discovery of the bad meat being made at Deptford, it was suggested that no more preserved meats should be issued from any of Her Majesty's stores, *Grant* 121——Orders to this effect were also immediately sent out to the foreign depôts; and the whole of the meats then in store and on board ship are being sent home for the purpose of examination, *Grant* 121–123; *Pinhorn* 1297, 1298——Evidence as to the quantity which had been issued from the deliveries under the contract of 1850, *Grant* 126–132. 198 *et seq.*——Explanation relative to the distribution of the meat in those canisters which have been opened and found to be serviceable; impracticability of re-issuing it, as it will not keep after the canisters have been opened, *ib.* 296. 318–323.

Statement of the quantities of preserved meat issued to the fleet since the commencement of the contracts, *Milne* 576–579 —— Necessity for great caution being exercised previous to the preserved meats being again issued; witness has his doubts of the meat keeping good, *ib.* 636–644——Precautions which are now taken to prevent any meats which may be bad from being issued, *Davies* 1515–1518.

See also *Condemnations of Meat,* 2. *Re-issues. Stores.*

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J.

Jamaica. Particulars relative to the result of a survey of some preserved meats at Jamaica in November 1851, *Smith* 1669, 1670.

James, John. (Analysis of his Evidence.)—Chief clerk of the Contract department of the Admiralty, and registrar of public securities, 2482. 2553, 2554——All the contracts pass through witness's department, 2555, 2556. 2600-2611——The terms of the contracts for different articles are from time to time revised, according to the necessity of the case, 2557——Scarcely any new contract for preserved meats has been made without some alterations and modifications, 2558, 2559——The terms of the contracts for preserved meats were considerably enlarged between 1844 and 1850; 2560, 2561——The contract of 1850 was much more stringent than the former contract; this was submitted to public tender, 2561, 2562——Previous to the contract of 1850 there had been a running contract with Mr. Goldner since 1844; this expired in April 1850, three months' notice having put a termination to it, 2563-2567.

Suggestion that the preserved meats should be manufactured in the United Kingdom; objections to the manufacture being carried on abroad, 2568. 2574-2577——Consultation witness had with the contractors, who were of the unanimous opinion that the meat could be more certainly preserved in smaller canisters than in the larger ones, 2569-2573——The terms of the contract of 1851 were precisely the same as those of the contract of 1850; 2578——The contract of 1851 was not submitted to public competition, but entered into privately with Mr. Goldner, 2579-2582. 2637, 2638——Evidence as to the sureties entered into for Mr. Goldner's performing his contract; validity of these sureties; they have not been called upon to make good the loss to Government from the condemnation of the preserved meats, 2583-2599. 2617-2634. 2641.

In ordinary cases there is a great sameness in all the contracts for navy stores, 2600-2611——The contracts for preserved meats are as stringent as it is possible for words to make them; no advantage would be gained from additions, 2610-2614——It is a very common case where a contractor is under a contract, if any further supply is required, to ask him whether he is content to supply on the same terms without going to public competition, 2645-2649——Denial that Mr. Goldner had any particular favour shown him, or that he had any interest at the Admiralty, 2651, 2652——Mr. Goldner's process was believed to be the best; his tenders were always the lowest, and thus the contracts were made with him, 2652-2654.

K.

Kidneys. See *Garbage, Offal.*

L.

Labels. Formerly no labels were placed on the canisters, so that the age of the meat could not be ascertained; this was altered in the contract of 1850, and a stamped label affixed to each canister delivered, *Grant* 85-88; *Milne* 580;

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Labels—continued.

Ede 1090–1099; *Pinhorn* 1378, 1379——Paper labels were formerly attached to the canisters; since 1850 the name of the contractor and date of delivery is stamped on the canisters, *Pinhorn* 1378, 1379.

See also *Condemnations of Meat*, 2.

Leyburn, William. (Analysis of his Evidence.)—Chief clerk in the department of the Comptroller of Victualling, 2655. 2726, 2727——All contracts connected with the victualling of the navy emanate from the department of the Comptroller of Victualling, 2728——Whenever stores are required, a submission is made to the Comptroller of Victualling, and if it meets with his concurrence, it is submitted to the Board of Admiralty for approval, and then advertisements are issued, 2729-2731——It is the custom for one of the Lords of the Admiralty to attend the Victualling Board on the day appointed to receive tenders, 2732——It is generally the rule for the Board to accept the lowest tender, 2732–2736——Samples of preserved meats were submitted to the Board before entering into contracts up to 1842; 2736–2742.

Contract taken by Mr. Gillon in 1843; failure of Mr. Gillon in consequence of an extensive quantity of preserved meat being required, and his not having time to prepare it, 2739-2749——Application made to Mr. Goldner, who accepted the order, and supplied the meat in large canisters, 2747–2751——By the contract, the meats were to be delivered in large canisters; it was not considered that there was any difficulty in preserving the meats in large tins; Mr. Gamble was the only contractor who objected thereto, 2752–2757——Doubts as to whether the meat will keep so well in large canisters as in small ones, 2752——Circumstances which led to the word "intestines" being added to the description of the parts of an animal that were not to be preserved, 2758–2760.

Inquiry instituted into the validity of the sureties proposed by contractors; this inquiry was made in the case of Mr. Goldner's sureties, 2761–2765. 2790–2792. 2807–2810—— Satisfactory supply of preserved meats by Mr. Goldner, from 1844 to 1849, under a running contract; small quantity required in those years, 2767–2770. 2796——The contract of May 1850 was accompanied by much more stringent conditions, and by heavier penalties than the former contracts, 2771, 2772——The contract for 1850 was advertised for in the usual way, and Mr. Goldner's being the lowest tender, was accepted; nothing had occurred up to this time which would have justified the Admiralty in excluding Mr. Goldner, 2773–2777——Private contract entered into with Mr. Goldner for a further supply of meat in 1851; 2778–2780——It is the usual practice of the victualling department to renew contracts with existing contractors, provided they have satisfactorily performed the terms of their former contracts, 2779, 2780.

The public have not been losers by the large quantity of Goldner's meat that has been condemned; the Government have sufficient money in hand to indemnify them, 2781–2807——Witness considers that the strictness exercised towards Mr. Goldner has been excessive rather than otherwise, 2783——None of the meat supplied by Mr. Goldner from 1844 to 1849 was rejected by the officers; the accounts of rejections did not come into the office till about the time of the contract of January 1851 being taken, 2784-2789——

Witness

Report, 1852—*continued.*

Leyburn, William. (Analysis of his Evidence)—*continued.*

Witness is not aware that Mr. Goldner had any political influence at the Admiralty, 2793-2795.

One of the conditions of the contract entered into with Mr. Goldner was, that the meat should be manufactured in the United Kingdom; this was not complied with, as it was manufactured at Galatz, 2797-2803——Objections to the Board appointing an inspector to see how the contract is executed, 2801——In consequence of the wholesale condemnations of the preserved meats, and the complaints made thereof, general orders were sent to all foreign stations in September 1851 for the return of all preserved meats, 2805, 2806——Rejection of the preserved meats from tongue being found therein, which was considered contrary to the conditions of the contract, 2806.

Leyne, James. (Analysis of his Evidence.)—Lieutenant in the 59th; embarked in the "Apollo" troop ship at Cork on the 12th June, and sailed on the 17th, in 1849; 2944, 2945——There were cases of cholera in the regiment before it embarked, both at Fenny and at Cork, 2946-2948——The first case of cholera occurred on board the day after sailing, the 18th June, 2949-2951——The preserved meats were not issued till some days after the vessel sailed, 2952-2961——For some time witness acted as quartermaster, and, of course, had the inspection of the messes as they were issued; there were several cases of the preserved meats declared to be bad from time to time, 2962-2979.

The canisters that were issued were of various sizes, 8 lbs., 10 lbs., 32 lbs., and there was no difference in the quality of the meat; some of all sizes were condemned, 2979-2989——Occasionally witness thinks he has perceived a smell before the canisters were opened; but has not perceived any particular smell in the store-room, 2990-2998——The smell of those cannisters that were bad was very offensive, and pervaded the whole ship, 2999-3004——The men were prejudiced against the preserved meats, 3005-3008. 3014, 3015. 3020-3022——Evidence relative to the mortality on board from the cholera, 3009-3012. 3016-3019.

M.

M'Kecknie, Alexander, M.D. (Analysis of his Evidence.)—Surgeon and medical storekeeper at Haslar Hospital, 1536——Has not attended surveys upon meats in Her Majesty's stores till lately, 1537——The first survey witness was ordered to assist at was in May 1851; only one or two canisters were opened, 1538——The large survey upon which Sir Edward Parry ordered witness to attend, commenced on the 30th December 1538——At the survey in May, one large tin canister of 32 lbs. weight was found to be bad, 1539-1542——The only unusual substance that was found was a heart, which was not according to the contract, but it was good 1543, 1544——The survey which witness attended in December lasted fourteen or fifteen days; every canister was opened, 1545-1547——The appearance of the meat was various; witness does not know the dates of the contracts under which the meats were supplied; the appearance of the meat was much worse than those opened in May, 1548-1550——Evidence in detail relative to the appearance and condition of the meat at the survey of December 30th; great state of decomposition of some of the meat; heart, tongue, and kidneys were found in some of the canisters, and in a few cases intestines was found; this was the case in twelve only

Report, 1852—*continued.*

M'Kecknie, Alexander, M. D. (Analysis of his Evidence)—*continued.*

out of upwards of 6,000 canisters, 1551–1560. 1589–1593——Witness has gone out in charge of convicts on two occasions, and has taken preserved meats as medical comforts for the sick, and they have never turned out bad; they have always been in small canisters of 4lbs or 6lbs., 1563–1580.

Grounds on which witness forms the opinion that the decomposed state of the meats found at the general survey is mainly attributable to the fact of the bullocks not having been properly bled when they were slaughtered, 1582–1588. 1594–1597. 1611–1614——The only suggestion witness can offer for remedying this would be, that there should be some person appointed to inspect the meat, or else that the Government should take into their own hands the preparation of it, 1598-1600——Witness does not see that having an inspector need in any way interfere with the responsibility of the contractor, 1601–1604——But witness would prefer the Government taking it into their own hands, 1604——Opinion that at such an establishment as the Clarence Yard the expense would not be great; facilities already there for carrying on such a work, 1605-1610.

The medical men on board ship are very favourable to the use of preserved meats for the use of the sick, 1615, 1616——Opinion there are no certain means of telling whether the meat is good or bad except by opening the canisters, 1617, 1618——In the convict ships in which witness went out the provisions were very good, and good health was preserved, 1621–1633——Preserved meats would be excellent rations for the fleet if they can be made to keep, 1634, 1635——The present scale of quality of the provisions of all kinds issued to the navy is better than it was formerly, 1636–1641——The supply of medicines to the navy is sufficient; a number of new and valuable medicines have just been given to the service, 1642——Witness would be sorry to give up the preserved meat as a medical comfort, 1643.

Manufacture of Provisions. The only manufacture of provisions carried on at Deptford Yard is biscuit and chocolate, *Pearn* 1014, 1015.

Medical Comforts. History of the first supply of preserved meat in the navy; introduction of it in 1830 as a medical comfort; its adoption as an article of victualling in 1847, *Grant* 141–143. *Milne* 611–613——Even with respect to medical comforts certain condemnations took place in consequence of the meat being bad, *Grant* 146–148——Different sorts of preserved meats supplied to the navy, for general issue and for medical comforts, *Pearn* 1007–1013——Witness has gone out in charge of convicts on two occasions, and has taken preserved meats as medical comforts for the sick, and they have never turned out bad; they have always been in small canisters of 4 lbs. or 6 lbs., *M'Kecknie* 1563–1580——The medical men on board ship are very favourable to the use of preserved meats for the use of the sick, *ib.* 1615, 1616——Witness would be sorry to give up the preserved meat as a medical comfort, *ib.* 1643——When witness first went into the navy preserved meat was only issued as a medical comfort, and then it was capital, *Smith* 1743–1746.

Medicines. The supply of medicines to the navy is sufficient; a number of new and valuable medicines have just been given to the service, *M'Kecknie* 1642.

Mercantile

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Mercantile Marine. The preserved meat is not issued in a solid state in the mercantile marine; it is principally issued as soup, *Milne* 575——Extensive use of the preserved meats in the merchant service; large quantity supplied by Goldner, *Morice* 842-845. 904-906——The absence of complaints of preserved meats in the merchant service may in part be attributed to the ships only being provisioned for a specific and limited time, *ib.* 904——In Green's ships preserved meat is shipped for the use of the passengers, and occasionally for the use of the crew in case of sickness, *Selfe* 1782——Witness has supplied large quantities of preserved meat to the mercantile navy, and they have been generally approved by the service, *Hogarth* 2160, 2161——Superiority of the quality of the preserved meats supplied to the Royal navy to that supplied to the mercantile service; difference in the price, *ib.* 2192-2203. 2209. 2224-2227——It is a very rare occurrence that witness has any complaints of his preserved meats supplied for the mercantile service, *ib.* 2204-2218——Supply of large quantities of meats and soups to the merchant service, *Best* 2460-2465.

Milk. Witness is engaged in carrying on the preserving of milk for the navy; annual quantity of milk thus preserved, *Moore*, 2276-2278——Extensive use of preserved milk by the merchant service, and in emigration vessels, *ib.* 2279.

Milne, Capt. *Alexander*, R.N. (Analysis of his Evidence.)—One of the Lords of the Admiralty; 497-499. 501——The Contract is not a separate department; each department has its own separate contracts, 500——Reconsideration of the contracts for preserved meats in 1849; alterations in the conditions of the contract suggested by witness, 502, 503——The conditions in the contract of 1850 were more stringent, and the detail more complete than it had been before, 504——The kind of meat which was to be put in the canisters was particularly described, as also the parts to be excluded, 504-508——Nature of the complaint made about November 1849, of substances other than those which were proper being found in the canisters; explanation received from Mr. Goldner on the subject, 509-517——There was no inspection of the preserved meat factories previous to 1850; officers employed in the inspection of the preserved meat factories since that period, 518-524. 691-693——Doubts as to whether it would be expedient to keep any fixed person as inspector at those establishments, 518. 582. 694, 695.

Goldner's contracts were considerably lower in their terms than the others that were tendered for in 1850; statement of the prices, 526, 527——The preservation of Goldner's meat being carried on at Galatz, and the lowness of the terms of the contract, did not, in witness's opinion, render an inspection of the process of manufacture necessary, 528——Survey of the preserved meats in the dockyard in 1851; selection of officers for making that survey, 529-542——Refusal of the Admiralty to allow Mr. Goldner to take away the bad meat, and replace it; they preferred surveying the whole of the canisters, and suing him for penalties, 532-540——Numerous complaints made of the preserved meats being unfit for food in 1850, and towards the beginning of 1851; 543, 547.

After the complaints made against the preserved meat supplied by Mr. Goldner in 1849, no survey of the meats in store took place previous to

Report, 1852—*continued.*

Milne, Capt. *Alexander*, R. N. (Analysis of his Evidence)—*continued.*

the contract of 1850 being entered into, 548-551——Nor was any special survey ordered previous to the contract for 1851 being entered into, although other complaints had been received, 552, 553——The circumstances complained of were reported to Mr. Goldner, and attributed to accident, 553——The complaints against the preserved meats supplied by Mr. Goldner were not considered sufficient ground to exclude him from the contract of 1850; 553, 554——Possibility of canisters being injured on being received into store; the smallest fracture would affect the meat and cause decay, 554, 555——The Admiralty have never departed from taking the lowest tender, 555-558. 633——It is as safe to accept the lowest tender as any of the others, 556-558. 563.

The causes of the decay of the preserved meats are unknown, and cannot be discovered, 560-562——After the business with Goldner the Admiralty entered into contracts with Mr. Gamble and others; the whole of the meat sent in has been rejected as unfit for good, 560-562. 570-574——There is no doubt that the measures taken by the Admiralty will ruin Mr. Goldner, 568, 569——The preserved meat is not issued in a solid state in the mercantile marine; it is principally issued as soup, 575——Statement of the quantities of preserved meat issued to the fleet since the commencement of the contracts, 576-579——Formerly no labels were placed on the canisters, so that the age of the meat could not be ascertained; this was altered in the contract of 1850, and a stamped label affixed to each canister, 580——The complaint against Goldner of short weight was quite unfounded, 580——There was nothing in the contarct of 1850 with regard to its being manufactured in the United Kingdom, 581.

Although there was a power of inspection of the preserving contained in the contract entered into with Mr. Goldner, it was never acted upon, 582-588——No new contract was entered into between 1844 and 1850; the contract of 1844 was a running contract with Mr. Goldner, 588, 589——Complaints made by Sir James Ross of the preserved meats issued to the Arctic expedition under his command; special survey on the return of the expedition, and report that the meats were perfectly sound and good, 590-598——At the time of the contract for 1851 being entered into with Mr. Goldner, witness is not aware that there were any complaints against the meat supplied under the contract of 1850; 599, 600——It would be better to take a contract for a period instead of for a quantity, 600.

Opinion that Mr. Goldner had no political influence whatever in obtaining his contracts, either under the former Board or the late Board, 601, 602——More was made out of the case of inspection of preserved meats at the Clarence Yard than it deserved; only 13 canisters were found to contain any thing improper, 603-610. 720, 721——History of the first supply of preserved meat in the navy; introduction in 1830 as a medical comfort; adoption as an article of victualling in 1847; 611-613——Favourable reports have been received of Goldner's preserved meats, whilst others have been very unsatisfactory, 613, 614——If preserved meat is to be continued as an article of victualling it will be more satisfactory to prepare it in the Royal yards; there would be no difficulty in so doing in the existing establishments, 615-619, 663-666——

Report, 1852—*continued.*

Milne, Capt. *Alexander*, R. N. (Analysis of his Evidence)—*continued.*

663-666——Preference to be given to the 6lb. canisters over the larger ones, 620-622.

Statement of what was actually found in the canisters in the shape of offal; certain improper substances were also found therein, said to have been placed there by some of Mr. Goldner's workpeople for the purpose of causing his ruin, 623-625——Detail of the process employed in preserving meat; no effectual inspection could be carried on during the process, 626-630——Estimated expense of fitting up an establishment for preserving meat for the navy, 630-632. 674-678——Supply of provisions to be obtained from foreign stations, 634, 635——Necessity for great caution being exercised previous to the preserved meats being again issued; witness has his doubts of the meat keeping good, 636-644——Witness has no recollection of any of the contractors objecting to the large size of the pieces of meat to be preserved, 645, 646——Calculation as to the prime cost of the meat supplied under Goldner's contracts, taking into consideration the canister and the cost of preparation, 647-659.

The preserved meats issued to the "Plover" were supplied under Goldner's contract; these meats were quite satisfactory, 660-662——Impossibility of obtaining the best parts of the animal under a system of public contract, 667-673——The ships on the Australian station have been supplied with preserved meats from contractors in that country, to a limited extent, 679-686——The preservation of soup by Mr. Gillon has been very successful; price at which it is supplied to the navy, 687-690. 699——Doubts as to whether soup and bouilli are suited for victualling the navy, 698-700——The expense of victualling the navy has decreased of late years; it is not possible to procure better provisions than those issued to the sailors, 701-704. 717, 718——Great advantages of supplying preserved meat to the navy instead of salt beef, if it is possible to ensure its keeping sound, 705-716.

The surveys of preserved meats took place at all the victualling depôts; remarks as to the quantities condemned, 719-734——Amount of provisional condemnations by special survey at Cremill Point, 727——Instances have occurred of the meat having been inspected and found perfectly sound on its being received into store, but which in six months' time has become bad, 727-732——Visit of inspection which the Board of Admiralty paid to Deptford in the autumn of 1851; inspection of the salt meat stores, 733, 734——Evidence relative to the salt meat stores at home and on foreign stations for the supply of the navy; supply obliged to be kept up; this accounts for some of the meat being some years old, 735-742——In the event of the salt meat, from its age, boiling away to the amount of one-half, an extra allowance is issued, 735——Abuses to which this system is liable; connivance between the men and the cook to obtain the extra allowance, 743-746.

Recommendation that the pay of the cook should be increased, instead of allowing him the perquisite of the slush, 747, 748—The allowance for waste should be done away with; an ample allowance of provisions should be made to seamen, but no extras, 749-752——It has been reported that American salt meat has been purchased by contractors at Cork, and supplied by them to the navy as Irish provisions, 753. 771——The military upon foreign stations draw small supplies of salt provisions from the naval stores, 754——Satisfactory

Report, 1852—*continued.*

Milne, Capt. *Alexander,* R. N. (Analysis of his Evidence)—*continued.*

Satisfactory nature of the manufacture of biscuit, flour, and cocoa for the naval service, 755-759——Some of the foreign pork supplied to the navy has been considered superior to the home-bred; this refers to the Dantzic, Hamburgh, and Brittany, 760, 761. 767-774.

Nothing has ever been neglected which could contribute to the goodness of the provisions supplied to the navy; decided improvement in the provisions and comforts of the seamen within the last thirty years, 763-766——Formerly the salt meat contract stipulated that it was to be the cure of the United Kingdom; circumstances which led to the contract being thrown open, and foreign provisions admitted, 767-774——Efforts made to supply the navy with preserved potato; it has always been made an article of issue with preserved meat; favourable reports thereof, 775, 776——In the contracts for the salt beef and pork there is a warranty for twelve months; witness is not aware of a single instance in which it has been necessary to call upon a salt meat contractor for penalties, 777, 779.

Moir, Mr. Survey at Deptford, on the 23d January 1852, of the preserved meat supplied by Mr. Moir, a Scotch contractor; the greater part of the canisters in that survey were found in a greater or less state of decomposition, *Brown,* 1204-1213, 1215, 1216.

Moore, Edward. (Analysis of his Evidence)—Resides at Ranton Abbey, in Staffordshire, 2274, 2275——Engaged in carrying on the preserving of milk for the navy; annual quantity of milk thus preserved, 2276-2278——Extensive use of preserved milk by the merchant service and in emigration vessels, 2279——Inquiries instituted by witness into the mode of preserving animal matter, with a view of offering a contract to Government for the supply of food, 2279, 2280——Goldner's process of preserving meat is far preferable to any of the other processes adopted; detail of the process, 2280-2311. 2352-2357. 2368-2370——Witness believes the evil which the Government have been guilty of, is in requiring the contractors to give them too large pieces of meat, 2296——If Government were to determine to manufacture their own preserved meat, they would not find the least difficulty in obtaining people who would be able to do it, 2311.

From witness's inquiries into the modes of preserving meats, it is his opinion that there is no great fault in the scientific principle which has been acted upon, but the failures which have occurred are to be ascribed rather to faults in the meat which has been put up, than to anything else, 2312-2315——The use of bad meat is the chief cause of the failure, 2312-2315——Importance of the condition of the animal at the time of slaughtering being strictly attended to; advantage would result from an inspection of all animals intended for preserving before slaughtering, and again at a certain time after death, 2315-2321——London is a bad place for preserving meat; there is so great a temptation to roguery, and the meat is injured by the overdriving of the beasts, 2319-2321——Under any system of preserving, good meat will be more likely to keep than bad meat, 2322-2338.

The preserved meat supplied by Mr. Goldner is not fit for human food; the state of the meat leads to the conclusion that it has been boiled down for the tallow,

Report, 1852—*continued.*

Moore, Edward. (Analysis of his Evidence)—*continued.*

tallow, 2338-2350——Witness does not approve of the practice of Mr. Goldner, though he does of his process of preservation, 2339——For ten years Mr. Goldner's meats gave every satisfaction; his whole failure has been from the enormous amount of his contract, and the almost impossibility of his performing it, 2350, 2351——Importance of the constant presence and vigilance of the manufacturer; the process cannot be left to the workmen, 2351——Opinion that it is the process of carbonising the air which secures the preservation of the meat; this is also the opinion of Professor Faraday, 2362.

It has always appeared to witness that Government should preserve their own meat; there would be no insuperable difficulties to their doing it, 2364——The establishment should be situate in a part of the country where the beasts will not be overdriven, and where they could be slaughtered coolly and quietly, 2364, 2465——Government could preserve meat, the very best parts, at a cost of about 5*d.* or 5½*d.* per lb., 2366, 2367——Witness considers it the safest plan to preserve the meat in small pieces, 2367, 2368——Advantage of meat being cooked in the tin, instead of its being first cooked and then packed in the canisters, 2368——Witness attributes the failure of Mr. Goldner's meats to the neglect of the whole process of preservation; neither the meat itself or the process can have been properly attended to, 2371-2374.

Moore, Mr. See *Condemnations of Meat,* 5.

Morice, Commander *George Farquhar,* R.N. (Analysis of his Evidence.) Held the situation of Master Attendant in the Victualling Yard at Deptford from 1833 to May 1850; 781-783——Experiments made as to the adoption of preserved meats for victualling the navy, 784-786——Satisfactory reports of the officers; the preserved meats were considered excellent things for the seamen, 787——In 1846 there had been no complaints of the meats turning corrupt in a short period, 788——Quantities of preserved meats returned to store at Deptford; occasionally some of them were found bad on account of the canisters being broken, 789——The only complaint witness ever heard made of the preserved meats was from the Polar expedition of Sir James Ross, when complaints were made that there was rather more bone than there ought to have been, 790-794.

Nature of the process of preserving meat as carried out by Mr. Goldner, 795, 796——Examination of the preserved meats on their being received into store at Deptford; witness never saw a bad canister of meat opened at Deptford, 799-815——Notwithstanding all that has transpired, witness considers preserved meats a good and safe mode of victualling the navy, if proper precautions are taken to see that the meat is of good quality, 816-821——Recommendation that there should be a Government officer to inspect the curing at all preserving establishments, 822-824, 827-832——The canisters should be made of stronger tin, 825, 826——It might be an improvement if the contractor was compelled to deliver meat from time to time as it was required by the ships instead of its laying in store, 833-836——The complaint made by Sir James Ross was not a formal complaint, only a passing complaint in conversation, 837, 838.

A great

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Morice, Commander *G. Farquhar,* R. N. (Analysis of his Evidence)—*continued.*

A great deal of injury is occasionally done to the canisters by the mode in which they are packed on board ship, 839-841——Extensive use of the preserved meats in the merchant service; large quantity supplied by Golder, 842-845. 904-906——Evidence as to the manufacture of pemmican; expensive nature of the operation as compared with the preserved meats, 846-851——Witness is not acquainted with the cost of preserving meat, but has no doubt the Government could cure it as cheaply as the contractors, 852-856——Risks attending the taking of contracts for preserved meats at a great distance from home; impossibility of an efficient inspection abroad, 857-860——Observations on the salt provisions for the navy; superiority of the foreign-cured provisions supplied for naval service, 861-876——The provisions of the navy are far superior to what they used to be, 877.

Great benefit has been derived from the Government preparing the bread for the navy in the Government yards, 878——Advantage and economy which would result from Government adopting the plan of preserving all its meat; estimate cost of establishments for that purpose, 878-894. 901, 902——It is very desirable that there should be some stringent regulations for stowing preserved meats on board ship, to prevent injury to the canisters, 895-898. 903.——The manufactory at Deptford of bread, cocoa, and flour is very successful, 899, 900——The absence of complaints of preserved meats in the merchant service may in part be attributed to the ships only being provisioned for a specific and limited time, 904.

N.

Navy, The. Short historical summary of the introduction of preserved meat into the navy, *Rep.* iv, v——Several experiments made as to the adoption of preserved meats for victualling the navy, *Morice* 784-786——Satisfactory reports of the officers; the preserved meats were considered excellent things for the seamen, *ib.* 787——Notwithstanding all that has transpired, witness considers preserved meats a good and safe mode of victualling the navy, if proper precautions are taken to see that the meat is of good quality, *ib.* 816-821——Adoption of preserved meats as a general issue for sea-going vessels in the navy about 1847, and discontinuance thereof at the commencement of 1852, *Pearn* 911-917——Preserved meat has been in general use as an article of provisions in the navy since the early part of 1847, *Davies* 1403-1405.

See also *Medical Comforts. Mercantile Marine. Provisions. Rations. Salt Provisions.*

O.

Offal. There was in store at Deptford, and not issued, a small quantity of Goldner's meat under the contract of 1851, *Grant* 94——It was examined in March 1851, and none of it was found to be faulty, *ib.* 94-104——On opening some of the canisters of a further delivery in 1851, it was found that pieces of tongue were contained in two of them, *ib.* 104, 105. 109——After the discovery

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Offal—continued.

discovery of this offal, the whole of Goldner's meat remaining in store at Deptford was examined and found to be serviceable, and in a good state, *Grant* 106–109.

Nature of the complaint made about November 1849 of substances other than those which were proper being found in the canisters; explanation received from Mr. Goldner on the subject, *Milne* 509–517——More was made out of the case of inspection of preserved meats at the Clarence Yard at Portsmouth than it deserved; only thirteen canisters were found to contain anything improper, *ib.* 603–610——Statement of what was actually found in the canisters in the shape of offal; certain improper substances were also found therein, said to have been placed there by some of Mr. Goldner's workpeople for the purpose of causing his ruin, *ib.* 623–625——Inspection of the preserved meats in store in Deptford Yard, March 1851; rejection of a large quantity from tongue being found therein, which was contrary to the contract, *Pearn* 918–936——Survey of the meats in store in May 1851; number of canisters opened; no improper substances were found therein, *ib.* 937–943.

According to the words of the contract, tongue and kidney are considered offal, *Pearn* 954–959; *Ede* 1051–1058. 1135–1138; *Pinhorn* 1391–1394; *Leyburn* 2806——The only improper substance contained in the canisters examined, were pieces of heart, tongue, and kidney, *Brown* 1189–1191—— Improper substances found in the canisters on the survey at the end of the year 1851, which might be described under the term offal, *Pinhorn* 1294–1296. 1391–1394——At the survey of 30 December 1851, at the Clarence Yard, the only unusual substance that was found was a heart, which was not according to the contract, but it was good, *M'Kecknie* 1543, 1544——Evidence in detail relative to the appearance and condition of the meat at the survey of 30 December 1851; great state of decomposition of some of the meat; heart, tongue, and kidneys were found in some of the canisters, and in a few cases intestine was found; this was the case in twelve only out of upwards of 6,000 canisters, *ib.* 1551–1560. 1589–1593——Difficulty of defining what is offal, *Dangar* 2075–2077.

See also *Condemnations of Meat*, 2. *Garbage.* *Intestines of Animals.*

Offensive Smell. Witness did not find anything unpleasant at Deptford Yard, or at the Portsmouth Yard, nor subsequently at Plymouth, so far as regards smell, *Grant* 270——Bad odour emitted from the canisters where perforation had taken place; where the canisters were perfect, there was no emission of any fœtid odour, *Brown* 1228–1243.

See also *"Apollo" Troop Ship.* *Clarence Yard.*

Opening Canisters. See *Inspection of Preserved Meats*, 1.

Over-Issues. See *Salt Provisions*, 3.

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P.

Packet Service. The packet service is victualled to a certain extent by the victualling department of the navy, *Grant* 6.

Pearn, Edward John Phillips. (Analysis of his Evidence.)—Master Attendant at the Deptford Victualling Yard and Dockyard, 907–909——Has been in the navy about 35 years, 910——Adoption of preserved meats as a general issue for sea-going vessels in the navy about 1847, and discontinued at the commencement of 1852; 911–917——Inspection of the preserved meats in store in March 1851; rejection of a large quantity from tongue being found therein, which was contrary to the contract, 918–936——Survey of the meats in store in May 1851; number of canisters opened; no improper substances found therein, 937–943——Special survey of Goldner's meats in store in November 1851, and rejection of upwards of 2,400 canisters, more or less in a state of decomposition; no improper substances were discovered, 944–953.

According to the words of the contract, tongue and kidney are considered offal, 954–959——At the time witness commanded the troop ship "Atholl," in 1849, there was a complaint of the preserved meat being putrid, which may be attributed to injuries received by the canisters; no improper substances were ever discovered in the meat, 960–981——The use of preserved meats is very desirable, if their being good can be insured, 968. 998–1001——During witness's official experience at Deptford, he has never discovered any improper substances in the preserved meat; heard in one instance of some undigested food being found, 982–984——Of the 2,400 canisters condemned in November 1851, witness considers the principal part had been returned from ships; 985, 986——Notwithstanding the utmost care in packing the canisters, they are frequently injured and the meat spoiled; the canisters become very much collapsed from the atmospheric pressure, 987–997.

The large canisters are more liable to injury than the small ones, 1001–1003——Good quality of the salt provisions in the navy, 1004, 1005——All kinds of provisions supplied to the navy have been greatly improved within the last ten or fifteen years, 1006——Different sorts of preserved meats supplied to the navy, for general issue and for medical comforts, 1007–1013——The only manufacture of provisions carried on at Deptford Yard is biscuit and chocolate, 1014, 1015——Remarks relative to the salting of meat for the Arctic ships, in progress at Deptford Yard, 1016–1020——Necessity for experiments as a preliminary step to the manufacture of preserved meat in the Government yards, 1021–1024.

Pemmican. Evidence as to the manufacture of pemmican; expensive nature of the operation as compared with the preserved meats, *Morice* 846–851.

Penalties. Since witness has been in office, where any deficiency or condemnation has taken place, he has always reported it to the Admiralty, and submitted whether the contractor should not be fined for having failed in the performance of his contract, *Grant* 27–29——Refusal of the Admiralty to allow Mr. Goldner to take away the bad meat and replace it; they preferred surveying the whole of the canisters, and suing him for penalties, *Milne* 532–540——There is no doubt that the measures taken by the Admiralty will ruin Mr. Goldner,

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Penalties—continued.

Goldner, *Milne* 568, 569——The contract of May 1850 was accompanied by much more stringent conditions and by heavier penalties than in former contracts, *Leyburn* 2771, 2772.

Pinhorn, Joseph. (Analysis of his Evidence.)—Storekeeper at Clarence Yard; has filled that situation since January 1851; 1244-1246——Quantity of preserved meat in store on witness's appointment; examination which took place, 1247-1258——The meat contained in the larger size canisters was in a much worse condition than that in the smaller canisters, 1256-1258. 1315. 1324, 1325. 1335, 1336——Offensive state of the store in consequence of having so large a quantity of bad meat therein; proceedings of the magistrates in consequence thereof, 1259-1262. 1283-1285. 1337-1344——Survey of the meats delivered from Mr. Goldner, which took place in April 1851, at which about 75,000 lbs. was rejected, 1263-1282. 1286, 1287. 1310-1316——Special survey which took place of the meats in store at the end of the year 1851 and the beginning of 1852; greater portion found to be bad, 1288-1293——Improper substances found in the canisters on the survey at the end of the year 1851, which might be described under the term offal, 1294-1296. 1391-1394.

Order issued to discontinue the issue of preserved meats on the 1st September 1851; order for all ships on foreign service to return all the meats on board, dated 31 October 1851; 1297, 1298——Examination of some of the meats supplied by Mr. Hogarth, after being in store five or six months; decomposed state of the meat, 1300-1304. 1331——The preserved meats received under different contracts, as well as that returned into store from foreign stations, are kept separate in the stores, 1305-1309——The preserved meats in the small canisters keep better than that in the large canisters, 1335, 1336, 1380——Examination of the meats in store supplied by Mr. Goldner, by Mr. Henry Cavaliero; quantity selected by him as unsound and taken away by Mr. Goldner; this took place in April 1851; 1344-1364——Survey of the meats returned into store from the "Gorgon" and the "Hecla" in March 1850; nature of the examination and result, 1365-1370——The chief cause of the meats going unsound is that they were cooked too much, 1374, 1375.

Formerly the canisters were packed in casks, to their great injury, now they are packed in wooden cases, free from danger, 1376, 1381——Paper labels were formerly attached to the canisters; since 1850 the name of the contractor and date of delivery is stamped on the canisters, 1378, 1379——Witness never discovered any improper substances in the preserved meat supplied by Mr. Hogarth, 1382, 1383——Manufacture of flour and biscuit at the Clarence Yard; satisfactory condition thereof, 1385-1388——Superior quality of the provisions supplied to the navy, 1388, 1390——There was a rumour of offal parts and intestines of animals being found in the preserved meats, but witness never discovered anything but heart and tongue, &c., which are denominated offal, 1391-1394.

"*Plover,*" The. The preserved meats issued to the "Plover" were supplied under Goldner's constract; these meats were quite satisfactory, *Milne,* 660-662.

Polar

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Polar Expedition. The only complaint witness ever heard made of the preserved meats was from the Polar expedition of Sir James Ross, when complaints were made that there was rather more bone than there ought to have been, *Morice* 790-794——The complaint made by Sir James Ross was not a formal complaint, only a passing complaint in conversation, *ib.* 837, 838.

See also *Arctic Ships.*

Pork. See *Salt Provisions.*

Potatoes, Preserved. Efforts made to supply the navy with preserved potato; it has always been made an article of issue with preserved meat; favourable reports thereof, *Milne* 775, 776——The preserved potatoes are a great comfort to the men, and ought to be continued, *Smith* 1748-1752——Edwards's patent preserved potatoes are a very good thing for sea voyages; they keep very well, *Selfe* 1936-1940.

Powell, Mr. The first rejection of preserved meats took place on the 19th September 1850, in consequence of short weight and inferior quality; this was under Mr. Powell's contract, *Ede* 1112-1115. 1121. 1125. 1131-1133. 1143-1147.——*See* also *Contracts,* 5.

Preserved Meat. Great advantages of supplying preserved meat to the navy instead of salt beef, if it is possible to ensure its keeping sound, *Milne* 705-716; *Pearn* 968. 998-1001.

Press, The. See *Clarence Yard.*

Prices of Meat:

1. *Generally.*
2. *Papers laid before the Committee.*

1. *Generally:*

Evidence showing that the meat supplied by the present contractors for which a large price is being paid has not been able to bear the test to which it has been submitted; witness believes the parties to be conscientious men, *Grant* 211——Calculation as to the prime cost of the meat supplied under Goldner's contracts, taking into consideration the canister and the cost of preparation, *Milne* 647-659——Witness recollects preserved meats being used upwards of thirty years ago, but the price was so great they were not used to any great extent, *Selfe* 1818——Witness has given from 9 *d.* to 1 *s.* a pound for it; the Australian meats are not more than half this price, *ib.* 1819-1821——The meat which Mr. Green has lately used from Australia has been delivered in England at 5¼ *d.* a pound; the tins are the greatest expense there; the canisters are about of the same make as those made in England, *ib.* 1844-1850——Prices at which Mr. Green has purchased preserved provisions at various periods, *ib.* 1907-1908.

Price charged by witness for his preserved meats in 1850 and at the present time, *Dangar* 1996-1999——It is witness's belief that preserved beef cannot be produced at a lower rate in any other country than Australia, *ib.* 2095-2098——Statement of the price charged for the preserved meats supplied by witness to the Royal Navy, *Hogarth* 2219-2221——Opinion that Government could preserve meat, the very best parts, at a cost of about 5 *d.* or 5½ *d.* per pound, *Moore* 2366, 2367——Price at which inferior meat is sold at Newgate and Leadenhall markets, *Best* 2476-2478.

2. *Papers*

Report, 1852—*continued.*

Prices of Meat—continued.

2. *Papers laid before the Committee:*

Statement showing the average prices of beef and pork in Newgate and Leadenhall markets, in the years 1845, 1846, 1847, 1848, 1849, 1850, and 1851; the contract prices for the same at Greenwich Hospital for the same years, specifying, in particular, the contract prices of each in January and February 1851, and August and September 1851; the regulated allowance of salt meats issued to each of Her Majesty's ships on the West India station, from the 1st January to 23d June 1851, both of salt beef and pork, placed each in a column, and added to the return presented, before the column of the extra quantity issued of each description of meat, *App.* 388——Return of the contract prices of mutton, beef, and pork, for Greenwich Hospital, for the years 1845, 1846, 1847, 1848, 1849, 1850, 1851, and 1852 inclusive, *ib.* 389.

See also *Arctic Ships.* *Australian Meat.* *Mercantile Marine.*

Private Contracts. See *Contracts*, 3. *Running Contracts.*

Process of Preserving. Opinion formed by the Committee from the evidence taken before them, that the most watchful care in the process itself, the greatest cleanliness, and the selection of the best parts of the animal for the purpose, are indispensable requisites, *Rep.* xi, xii——Opinion that the chief cause of the meats going unsound is that they were cooked too much, *Pinhorn* 1374, 1375——Way in which the preserved meat is cooked, *Smith* 1713, 1714——The process of preservation is very simple and easily learnt, *Dangar* 2005-2008—— Detail of the process of preserving meat adopted by witness at his factory in Australia, *ib.* 2040-2050——Impossibility of preserving meat properly if it is not fully cooked, *ib.* 2079-2086.

The method of preserving meat can be effectually carried out so as to ensure the crews of ships being supplied with good meat for three years, *Hogarth* 2162-2172——Experiments made by witness to ascertain the most perfect system of preserving meat; results obtained, *Moore* 2352-2357——Advantage of meat being cooked in the tin instead of its being first cooked and then packed in the canisters, *ib.* 2368——Witness attributes the failure of Mr. Goldner's meats to the neglect of the whole process of preservation; neither the meat itself or the process can have been properly attended to, *ib.* 2371-2374——Detail of the process of preserving meat adopted by witness, *Best* 2392-2399, 2413-2415——Difference between witness's process of preserving meat and Mr. Goldner's; Mr. Goldner's is evidently a very satisfactory process for the preservation of meat, but witness prefers his own system, *ib.* 2405-2409. 2470.

See also *Bad Meat.* *Curing Establishments*, 2. 4. *Goldner*, Mr.

Provisioning Ships. See *Green*, Mr. *Mercantile Marine.*

Provisions (Navy). Opinion that the provisions of the navy are far superior to what they used to be in every respect, *Grant* 468-472; *Morice* 877; *Pearn* 1006; *Ede* 1157-1160; *Pinhorn* 1388-1390; *Davies* 1499; *M'Kecknie* 1636-1641; *Smith* 1715, 1716. 1722. 1765-1770.——It is impossible for greater

Report, 1852—*continued.*

Provisions (Navy)—*continued.*

attention to be paid in the provisioning of the navy than has been paid of late years; the expense is less than formerly, *Grant* 476-478——Nothing has ever been neglected which could contribute to the goodness of the provisions supplied to the navy; decided improvement in the provisions and comforts of the seamen within the last thirty years, *Milne* 763-766——There is no nation in the world that issues such provisions to the seamen as we do, *Smith* 1715, 1716. 1722.

See also *Arctic Ships.* *Condemnations of Meat.* *Contracts.* *Convict Ships.* *Expenditure.* *Foreign Provisions.* *Green*, Mr. *Inspection of Provisions.* *Manufacture of Provisions.* *Navy*, The. *Rations.* *Salt Provisions.*

Q.

Quality of Meat. Opinion of the Committee that there is evidence to show that if the preserved meats are good in the first instance they will remain good for any term of years, *Rep.* iv——Impossibility of obtaining the best parts of the animal under a system of public contract, *Milne* 667-673——Necessity in making preserved meats, for having good meats for the foundation, *Best* 2416-2430——Frequency of inferior and bad meat being purchased by the London preserved meat manufacturers, *ib.* 2431-2441.

See also *Australian Meat.* *Goldner*, Mr., 1. *Mercantile Marine.* *Process of Preserving.*

R.

Rations. Every single ship which was fitted out from either of the three principal yards had a proportion of the preserved meats; it formed a ration to the navy, *Grant* 69——Preserved meats would be excellent rations for the fleet if they can be made to keep, *Davies* 1495, 1496. 1505; *M'Kecknie* 1634, 1635; *Smith* 1684, 1685——The regulation with regard to preserved meats was three quarters of a pound to each man on every alternate day, *Smith* 1653-1655. 1668——Preserved meat was first introduced as an article of general issue for the navy in 1847, *Leyburn* 2766.——*See* also *Provisions.*

Rawstorne, Captain *James.* (Analysis of his Evidence.)—Commander in the navy, 3023; commanded the "Apollo" troop ship in January 1849; embarkation of the 59th Regiment at Cork, in June 1849; 3024-3026; sickly state of the troops at the time of embarkation, 3027; the first case of cholera appeared the day after sailing, 3028; the preserved meats had not been issued at the time of the first appearance of the cholera on board, 3029-3040; in consequence of the numerous complaints made of the preserved meats being bad, a standing Board was appointed for the regular survey of the meats at the time of issue, 3041-3048; discontinuance of the issue of preserved meats to the troops for about two months; they were not discontinued for the use of the crew, 3049-3051.

The preserved meats, in their best state, were never so much liked by the sailors or the troops as the salt provisions, 3052——After the discovery that some of the meats were bad, witness issued orders that all the canisters should be opened

Report, 1852—*continued.*

Rawstorne, Captain *James.* (Analysis of his Evidence)—*continued.*

opened on the upper deck, as the effluvia was very offensive on opening, 3053–3055. 3077–3079——No smell arose from the preserved meats previous to opening the canisters; witness never heard any complaints from the officers on board the "Apollo" that such was the case, 3056–3058. 3072–3075——Witness would not like to attribute the improved health of the troops to the discontinuance of the issue of preserved meats, but to their being fed on fresh provisions at Rio Janeiro, 3060, 3061.

Evidence relative to the mortality on board the "Apollo" from cholera; report of the medical officer upon the subject, 3062, 3063. 3088–3090——Recommendation of the assistant surgeon on board the "Apollo" for the re-issue of the preserved meats to the troops; this recommendation was complied with, 3064–3071——Witness does not impute the sickness and mortality on board the "Apollo" in any degree to the provisions; the troops were embarked in an unhealthy state, and were predisposed to illness of all kinds, 3083, 3084.

Receiving Officers. Responsibility of the receiving officer at the Government yards, *Ede* 1168–1172——Witness's duty is to superintend the receiving of all the stores connected with the establishment, *Davies* 1397——When preserved meats are received it is witness's duty to inspect them; for this purpose witness is associated with the storekeepers, *ib.* 1401–1402.

See also *Inspection of Provisions.*

Re-issues. Explanation as to the issue of the meats found good on the inspection in November 1851; impossibility of their being used for the purpose of victualling the navy, *Ede* 1059–1069——The preserved meats that are left after a voyage are re-issued, *Selfe* 1882.

Rejection of Meat. None of the meat supplied by Mr. Goldner from 1844 to 1849 was rejected by the officers; the accounts did not come into the office of rejections till about the time of the contract of January 1851 being taken, *Leyburn* 2784–2789.

See also *Condemnations of Meat. Cooper,* Mr. *Goldner,* Mr., 2. *Hogarth,* Mr., 3. *Inspection of Provisions,* 2. *Powell,* Mr.

Renewal of Contracts. See *Contracts,* 3.

"*Resolute,*" H. M. Ship. See *Arctic Ships.*

Revision of Contracts. The terms of the contracts for different articles are from time to time revised, according to the necessity of the case, *James* 2557——Scarcely any contract for preserved meats has been made without some alterations and modifications, *ib.* 2558, 2559.

Ritchie, Mr. Copy of a letter from Mr. S. S. Ritchie, dated 29 October 1850, *App.* 401.

Ross, Sir *James.* See *Arctic Ships. Polar Expedition.*

Running Contracts. Objection to what are termed running contracts, *Grant* 448——Running contracts have been discontinued entirely since 1848, *ib.* 463——No new contract was entered into between 1844 and 1850; the contract of 1844 was a running contract with Mr. Goldner, which was stopped in December 1849, *Milne* 588, 589——No alteration could be made in the terms of the contracts with regard to the time of delivery, or the time

Report, 1852—*continued.*

Running Contracts—continued.

over which they should run, that would be beneficial, *Ede*, 1101, 1102——Previous to the contract of 1850, there had been a running contract with Mr. Goldner since 1844; this expired in April 1850, three months' notice having put a termination to it, *James* 2563-2567——It is a very common case where a contractor is under a contract, if any further supply is required, to ask him whether he is content to supply on the same terms without going to public competition, *ib.* 2645-2649——Satisfactory supply of preserved meats by Mr. Goldner from 1844 to 1849 under a running contract; small quantity required in those years, *Leyburn* 2767-2770.

S.

Salmon. Witness sends a great deal of salmon to India, which is fully as delicate as meat; he has never had any complaint of its not keeping sound, *Hogarth* 2228-2230.

Salt. Objection to the use of salt in the manufacture of preserved meats; the object of preserved meat is to have fresh provisions, *Best*, 2466-2469.

Salt Provisions:

1. *General Approval of the Salt Provisions issued to the Navy; comparison between the British and Foreign Meat.*
2. *Supply of Salt Provisions necessary to be kept in Store.*
3. *Explanation relative to what are termed Over-issues, or Extra Allowances of Salt Provisions.*
4. *Particulars relative to the Victualling of Green's Ships.*
5. *Paper laid before the Committee.*

1. *General Approval of the Salt Provisions issued to the Navy; comparison between the British and Foreign Meat:*

Opinion of the Committee, that with respect to the salted provisions supplied to the seamen of the navy, nothing can be more satisfactory, *Rep.* xix——During the long period witness has been connected with the victualling department, he is not aware of any instance of fault having been found with the contractor for salted provisions; process pursued with respect to the inspection, *Grant* 450——New test to which the salt provisions have latterly been subjected, *ib.* 450. 454, 455——As regards the American meat, it is of different qualities, *ib.* 453, 454——How far there are any means of ascertaining whether the salt meat which is received under the English contracts is or is not foreign meat, *ib.* 458——The salt meats delivered under the contracts of 1850 and 1851 have been as fine meats as can possibly be obtained; particularly the Hamburg meat, *ib.* 459——The Irish meat has not of late been so fine as it was formerly, *ib.*——The Hamburg pork and the Dantzic pork are considered superior to the Irish, *ib.* 493.

The last receipt of fresh meat is reported to be of very superior quality, and the waste in boiling is comparatively small; this is the case with both the beef and pork, *Grant* 493-495——The best-looking American meat, that is, the finest grown and the fattest, is the meat that loses the most in boiling,

Grant

Report, 1852—*continued.*

SALT PROVISIONS—continued.

1. *General approval of the Salt Provisions, &c.*—continued.

Grant 495——The meat which is fatted in the way that beasts are fatted for the sake of obtaining a price boils away to a large amount, *ib.* 496.

Good quality of the salt provisions in the navy; it is very superior to that formerly supplied, *Pearn* 1004, 1005——During the time the "Arrogant" was in the West Indies the crew were perfectly satisfied with the salt provisions, though there is at times a great shrinkage in the boiling; this probably arises from the age of the beef, *Smith* 1700-1710. 1717-1721——The salt provisions supplied to Her Majesty's fleet are the finest in the world, compared with other nations, *ib.* 1712.

2. *Supply of Salt Provisions necessary to be kept in Store:*

Reason why, in the years 1849 and 1850, there was no contract whatever for salt beef, *Grant* 430——It has generally been considered necessary to have sixteen or eighteen months' supply of salt meat in store, *ib.* 443. 447-449——In consequence of the late condemnation of preserved meats, there has been a great deal of trouble and difficulty in obtaining a sufficient supply of salt meat to make up the deficiency, *ib.* 447, 448——Evidence relative to the salt meat stores at home and on foreign stations for the supply of the navy; supply obliged to be kept up; this accounts for some of the meat being some years old, *Milne* 735-742.

3. *Explanation relative to what are termed Over-issues, or Extra Allowances of Salt Provisions:*

The failure that has occurred in the quality of salt provisions issued to Her Majesty's ship "Alarm," on the West India station, appears to have been solely attributable to the length of time the provisions had been in the store, *Rep.* xix——Explanation in detail relative to the item of over-issues, or extra-issues, of salt provisions, which appear very large as regards some of the vessels on the West India stations; particular instances of the "Alarm," *Grant* 430-442. 444-446. 449——Date of the circular directing that in case the salt meat boiled above one-half, there should be an additional allowance to the sailors; wording of this circular, *ib.* 464——The sailor has materially benefited by this arrangement, *ib.* 465-467. 483-489.

In the event of the salt meat, from its age, boiling away to the amount of one half, an extra allowance is issued, *Milne* 735——Abuses to which this system is liable; connivance between the men and the cook to obtain the extra allowance, *ib.* 743-746——Recommendation that the pay of the cook should be increased, instead of allowing him the perquisite of the slush, *ib.* 747, 748——Opinion that the allowance for waste should be done away with; an ample allowance of provisions should be made to seamen, but no extras, *ib.* 749-752——Witness finds many complaints of the boiling away of the salt meat; the strongest precautions are taken against it, but it is often found that the cooks boil the meat; they are allowed the slush as a perquisite, and this may account for it, *Selfe* 1918-1924——The skrinkage also depends in a great measure on the age of the meat, *ib.* 1925-1930. 1968, 1969. 1971——Witness would say that flesh-cured meat shrinks very little, *ib.* 1933-1935.

Report, 1852—*continued.*

Salt Provisions—continued.

4. *Particulars relative to the Victualling of Green's Ships:*

Mr. Green's vessels have been victualled principally with salt provisions, *Selfe*, 1776——Mr. Green purchases the best that can be got in the market, India beef and India pork, *ib.*——The crews have lately had American beef in preference to Irish or English beef; the Irish meat is not so good as it was, *ib.* 1776–1781——The Irish pork is superior to the American for sea purposes, *ib.* 1779.

5. *Paper laid before the Committee:*

Return of the total quantities and value of each description of beef and pork contracted for during the years 1848, 1849, 1850, 1851, *App.* 407.

See also *American Provisions.* *"Apollo" Troop Ship.* *British-cured Meat*, 2. *Condemnations of Meat*, 1. *Contracts*, 2. *Foreign Provisions.* *Green*, Mr. *Seamen.*

Samples. The Admiralty has already altered their system, and buy the meats by sample before they are preserved, *Grant* 412–415——Samples of preserved meats were submitted to the Board before entering into contracts up to 1842; from that time up to 1851 there were so samples submitted to them, *Leyburn* 2736–2742.——*See* also *Contracts*, 4.

Sea-going Vessels. Large quantities of preserved meats supplied to sea-going vessels of late, *Ede* 1030.

Seamen. Difficulty of saying whether the sailors would prefer having issues of preserved meat or not; they are odd men, and are sometimes fond of a growl, *Smith* 1739, 1740. 1747. 1753–1764——The preserved meats, in their best state, were never so much liked by the sailors or the troops as the salt provisions, *Rawstorne* 3052——The preserved meats are not looked upon with favour by the seamen; they do not think that there is any nourishment in them, *Cole* 3148–3153.

See also *"Apollo" Troop Ship.* *"Arrogant,"* H. M. Ship. *Green*, Mr. *Navy*, The. *Provisions.* *Salt Provisions*, 1. 3.

Selfe, James. (Analysis of his Evidence.)—Ship's husband to Mr. Green; has had the entire superintendence of the victualling of Mr. Green's ships for thirteen years, 1771–1775——The vessels have been victualled principally with salt provisions, 1776——Mr. Green purchases the best that can be got in the market, India beef and India pork, 1776——The crews have lately had American beef in preference to Irish or English beef; the Irish meat is not so good as it was, 1776–1781——The Irish pork is superior to the American for sea purposes, 1779——Preserved meat is shipped for the use of the passengers, and occasionally for the use of the crew in case of sickness, 1782.

About five or six years ago witness did duty for the inspector of the East India Company's ships for twelve months, on account of his illness, 1782–1784——Witness had occasion to inspect a large quantity of provisions, and in some instances condemned a great many of them, 1782——The reason of their condemnation was in consequence of a very large portion of vegetables being mixed

Report, 1852—*continued.*

Selfe, James. (Analysis of his Evidence)—*continued.*

mixed with the meat, 1785. 1811-1814——They were English provisions which had been sent out and purchased in India for the troops on the homeward voyage, 1785-1788——In very few instances has the meat supplied to Green's ships been condemned; it is the best that can be got, 1789-1792——It has been obtained from Mr. Gamble and from Mr. Cooper; none has been procured from Mr. Goldner for the last three or four years, 1790.

Witness has lately inspected some very excellent meat from Australia; it is the finest preserved meat he has seen, and is very cheap, 5¼ *d.* a lb., 1792-1798. 1801-1806. 1863-1865——It had borne the voyage from Australia, and was perfectly good; witness's opinion is that it will keep six or seven years, 1799-1809——Some of the South Sea whalers have been supplied with this meat, and witness has no doubt they will bring some of it home quite good 1809, 1810. 1836-1839——Green's ships making the voyage to India are not regularly provisioned with preserved meats for the crew; the men generally do not fancy them; they prefer the salt provisions, 1815-1817. 1871-1875.

Witness recollects preserved meats being used upwards of thirty years ago, but the price was so great they were not used to any great extent, 1818——Witness has given from 9 *d.* to 1 *s.* a pound for it; the Australian meats are not more than half this price, 1819-1821——The parties with whom witness has dealt most largely have been Messrs. Cooper, Mr. Gamble, and Messrs. Copland & Barnes; there has never been occasion to condemn any of the meats except in some few instances where they have been mixed with vegetables, 1821-1835——Large rounds of beef have been taken that would weigh twenty pounds, and witness has seen them come home again perfectly good, 1821——The reason for witness's having about three or four years ago renounced dealing with Mr. Goldner was owing to the stewards recommending witness not to deal with him from the failure of the provisions he had supplied, 1840-1843.

The meat which Mr. Green has lately used from Australia has been delivered in England at 5¼ *d.* a pound; the tins are the greatest expense there; the canisters are about of the same make as those made in England, 1844-1850——There are 4 lb., 6 lb., and 8 lb. canisters; Mr. Green usually uses the 4 lb. tins, 1851, 1852. Witness would say that the larger the pieces of meat preserved the better it will keep; the gelatine should also be solid, 1853-1857. 1870——There is more fat in the Australian meat than in any other witness has seen; this no doubt assists to keep the meat, 1858. 1861, 1862——The meat from Australia is entirely beef; any meat, if properly cured, would keep equally well, 1859-1860.

Green's ships are not supplied by contract; the best meat is always endeavoured to be obtained, 1866, 1867. 1880, 1881——Stowage of the preserved meats on board ship 1868, 1869——Witness considers that the men on board Green's ships are victualled on a very liberal scale; there are never any complaints; the crews that go out in the vessels mostly come back in the same vessels, 1874-1879——The preserved meats that are left after a voyage are re-issued, 1882. 1892. 1897-1902——The preserved meats which witness had from Goldner were of various kinds; they were only for the use of the passengers;

Report, 1852—*continued.*

Selfe, James. (Analysis of his Evidence)—*continued.*

gers; they consisted of beef, fish, fowls, &c.; they were manufactured in England, and reckoned the best in London, 1883-1886——Nothing was ever found in Mr. Goldner's canisters unfit for food, 1887, 1888——Vegetables mixed with meat render the meat much more liable to fermentation than the meat by itself would be, 1889, 1890.

Estimated proportion of the preserved meat witness condemned while he inspected for the East India Company, 1891–1906. 1909–1917. 1931, 1932——Meats are frequently purchased in India for the ships, these meats having been sent out from this country; inspection which these meats undergo before they are put on board ship, 1892. 1909–1917——Prices at which Mr. Green has purchased preserved provisions at various periods, 1907, 1908——Witness finds many complaints of the boiling away of the salt meat; the strongest precautions are taken against it, but it is often found that the cooks boil the meat; they are allowed the slush as a perquisite, and this may account for it, 1918–1924——The shrinkage also depends in a great measure on the age of the meat, 1925–1930. 1968, 1969. 1971——Witness would say that fresh-cured meat shrinks very little, 1933–1935.

Edwards's patent preserved potatoes are a very good thing for sea voyages; they keep very well, 1936–1940——The cost of victualling a man is about 9*d.* per day, 1941——Number of Green's ships afloat; number of men and officers, 1942–1948. 1952–1958——The scale of victualling is the same as it was twenty years ago, with the exception of lime juice; the scale is very satisfactory to the men, 1949–1951——Reasons why witness is averse to contract for provisions; it was on witness's recommendation that the system of contracts was given up by Mr. Green, 1959–1968.

Short Weight. The complaint against Goldner of short weight was quite unfounded; the original contract was fixed at fourteen ounces to the pound, without bone, *Milne* 580——One lot of witness's preserved meat was rejected on delivery from defective weight; the first contract included the gelatine in the weight, the next contract excluded the gelatine, *Hogarth* 2157, 2158.

Size of Canisters. Strong opinion of the Committee in favour of small canisters over large canisters; under the existing contracts no tins are to be larger than six pounds, *Rep.* xii, xiii——The great defect is that the meat is preserved in too large pieces and in too large canisters, *Grant* 164–166. 174; *Moore* 2296——Under the contracts of 1850 and 1851, the meat was ordered to be preserved in whole pieces; reasons why witness considers this objectionable, *Grant* 164–166. 174——The large canisters are more liable to injury than the small ones, *Grant* 164–166. 174; *Pearn* 1001–1003——Six-pound canisters are to be used in future; these will not be so liable to injury, *Grant* 164. 174, 175. 374.

Preserving the meat in large pieces, and in large canisters, is a bad plan, *Grant* 350–358. 362; *Hogarth* 2266–2273; *Dangar* 2004; *Moore* 2367, 2368; *James* 2569–2573——Preference to be given to the 6 lb. canisters over the larger ones, *Grant* 362; *Milne* 620–622; *Davies* 1499–1503; *Dangar* 2000–2003; *Hogarth* 2173–2190——Witness has no recollection of any of the contractors

Report, 1852—*continued.*

Size of Canisters—continued.

tractors objecting to the large size of the pieces of meat to be preserved, *Milne* 645, 646.

The preserved meat in the small canisters keeps better than that in the large canisters, *Pinhorn* 1256–1258. 1315. 1324, 1325. 1335, 1336. 1380; *Smith* 1678–1680; *James* 2569; *Leyburn*, 2752——Witness would say that the larger the pieces of meat preserved the better it will keep; the gelatine should also be solid, *Selfe* 1853–1857. 1870——The size of the canisters is stated in the contracts, and not left to the option of the contractors, *Hogarth* 2173–2190——There is no difficulty in preserving the meat in large pieces, and in large canisters; reason of witness being in favour of the use of small cases, *ib.* 2266–2273——Consultation witness had with the contractors, who were of the unanimous opinion that the meat could be more certainly preserved in smaller canisters than in the larger ones, *James* 2569–2573——By the contract the meats were to be delivered in large canisters; it was not considered that there was any difficulty in preserving the meats in large tins; Mr. Gamble was the only contractor who objected thereto, *Leyburn*, 2752–2757.

See also "*Apollo*" *Troop Ship.* "*Arrogant*," H. M. Ship. *Goldner*, Mr., 1. *Medical Comforts.* *Storage, &c.*

Slaughtering Beasts. See *Bad Meat.* *Curing Establishments*, 1.

Smith, Edwin Augustus. (Analysis of his Evidence.)—Paymaster and purser of the "Arrogant" steam frigate; foreign stations witness has been on since he has belonged to her; first sailed on a foreign station in May 1849; 1644–1651——The "Arrogant" was victualled, on her leaving, with salt beef and pork, a proportion of preserved meats, and potatoes and rice, 1652——The regulation with regard to preserved meats was three quarters of a pound to each man on every alternate day, 1653–1655. 1668——It was Goldner's meat, but witness does not know the date of the contract, 1656, 1657——The canisters, generally speaking, were small, 1658, 1659——The usual character of the meat was not good; it was not popular with the men, 1660–1665.

On board of one ship on which witness served, the "Curacoa," it was popular with the men; this was in 1847; it was rather better than that witness had on board the "Arrogant, 1662–1665——During the three years the "Arrogant" was in commission about 1,600 lbs. was condemned out of 30,000 or 40,000 lbs., 1666, 1667——Particulars relative to the result of a survey of some preserved meats at Jamaica in November 1851; 1669, 1670——As the preserved meats were issued out to the ship's crew there might perhaps be, one day in three, one or more canisters bad; the stench of the bad ones was dreadful; this would naturally tend to make the preserved meat unpopular, 1671–1676.

The meat preserved in the small canisters was the best, 1678–1680.——The usual quality of the meat in the 32 lb. canisters was not a prime quality; it was stringy meat; rags with no nourishment, 1681–1693——Some of the canisters were very good indeed, 1684. 1690–1693——Preserved meat is certainly a great boon to the sailors, provided it could be supplied good, 1684, 1685

Report, 1852—*continued.*

Smith, Edwin Augustus. (Analysis of his Evidence)—*continued.*

1685——Witness was upon the West India station in the latter part of 1851 and the beginning of 1852; 1694, 1695——There were no complaints made relative to the quality of the meat in the ships on that station, 1696——It was an understood thing on board the "Arrogant" that everybody thought the meats bad; everybody condemned them, and feared the stench was dangerous to the health of the ship's company, 1696–1697.

Injury to which the canisters are subject from bad stowage, 1698, 1699——During the time the ship was in the West Indies the crew were perfectly satisfied with the salt provisions; though there is at times a great shrinkage in the boiling, this probably arises from the age of the beef, 1700-1710. 1717–1721——Witness has never known a particle of salt meat condemned except on one occasion, and this was in consequence of injury on board ship, 1711——The salt provisions supplied to Her Majesty's fleet are the finest in the world, compared with other nations, 1712——Way in which the present meat is cooked, 1713, 1714——The provisions generally issued to the navy are of a superior quality; there is no nation in the world that issues such provisions to the seamen as we do, 1715, 1716. 1722——Reasons why the salt provisions must occasionally be old, 1723–1724.

Particular care is used in stowing the preserved meats on board ship, 1725–1728——As the provisions are received from the victualling yard, it is never considered necessary to inspect them when they come on board, though the paymaster can order a survey if he thinks proper, but he must give some reason for calling for it, 1735–1738——Difficulty of saying whether the sailors would prefer having issues of preserved meat or not; they are odd men, and are sometimes fond of a growl, 1739, 1740. 1747. 1753–1764.

When witness first went into the navy, preserved meat was only issued as a medical comfort, and then it was capital, 1743–1746——The preserved potatoes are a great comfort to the men, and ought to be continued, 1748–1752——Throughout the whole time the "Amazon" has been in commission the preserved meats have been usually of the same description; witness imagines they were Goldner's, 1753–1764——The present scale of quality of the provisions issued to the navy is better than it was when witness first entered it; they are all excellent, 1765–1770.

Soup. The preservation of soup by Mr. Gillon has been very successful; price at which it is supplied to the navy, *Milne* 687–690. 699——Doubts as to whether soup and bouilli are suited for victualling the navy, *ib.* 698–700.

See also *Mercantile Marine.*

South Sea Whalers. See *Australian Meat.*

Special Services. In 1831 Sir Edward Belcher asked to be supplied with preserved meat, and from that time to 1839 several applications were made for small quantities for ships going upon special services, *Grant* 144, 145.

Special Survey. In the case of preserved meats, a special survey was held in the early period of 1851; special officers, in conjunction with the yard officers, were appointed by the Admiralty, *Grant* 38, 39——This was done in the three

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Special Survey—continued.

three principal yards of Deptford, Plymouth and Portsmouth, *Grant* 40,41——The contract of 1851 was made with Goldner before the special examination of the stores of 1850, *ib.* 124. 133–138——Witness was present at the special survey which took place at Deptford of Goldner's meat in 1851, and also at the special survey at the Clarence Yard; the preserved meats that were then opened were considered perfectly good; there was nothing unfit for human food, *ib.* 255–269——These surveys were considered necessary on account of the complaints which were coming in to the Admiralty, *ib.*——Special survey of the meats in store in Deptford Yard, on the 6th November 1851; large quantity examined; condemnation of 2,400 canisters as unfit for human food, on account of decomposition, out of the 2,726 examined, *Ede* 1044–1071. 1099; *Brown* 1179–1188——Special survey which took place of the meats in store in the Clarence Yard at the end of the year 1851 and the beginning of 1852; greater portion found to be bad, *Pinhorn* 1288–1293.

See also *Arctic Ships.* *Clarence Yard* *Condemnations of Meat.* *Inspection of Provisions.* *Survey of Meats.*

Storage and Stowage. Observations of the Committee on the danger to which the canisters, and consequently the meats, are liable from their being knocked about and from improper stowage, *Rep.* xiv——Reference to the statement made by Goldner that many of the canisters were much indented and bruised on their voyage from Galatz to England; these canisters were not received either under the contracts of 1850 or 1851, *Grant* 190, 191——There is no doubt that injury does arise to them after they have left the contractor's hands, from their being stowed away in casks, *Grant* 192, 193; *Morice* 839–841; *Davies* 1527–1529; *Smith* 1698–1699; *Hogarth* 2247–2254; *Cole* 3124–3129——The usage the canisters are subjected to on board ship is one cause of the decomposition of the meat, and from their being often in contact with salt water, *Grant* 354, 355.

Possibility of canisters being injured on being received into store; the smallest fracture would affect the meat and cause decay, *Milne* 554, 555——It is very desirable that there should be some stringent regulations for stowing preserved meats on board ship to prevent injury to the canisters, *Morice* 895–898. 903——Notwithstanding the utmost care in packing the canisters they are frequently injured and the meat spoiled; the canisters become very much collapsed from the atmospheric pressure, *Pearn* 987–997——Formerly the canisters were packed in casks, to their great injury, now they are packed in wooden cases, free from danger, *Pinhorn* 1376. 1381——Substitution of cheap cases in lieu of hogsheads, at witness's suggestion, *Davies* 1527–1529. 1532–1535——Evidence relative to the stowage of the preserved meats on board ship, *Smith* 1725–1728; *Selfe* 1868, 1869; *Cole* 3124–3129.

A considerable portion of the meat condemned arose from the careless and disgraceful usage of the canisters, *Hogarth* 2139–2152——Witness never had any of his meats condemned on delivery, therefore he infers that the injury to the canisters arose from ill-usage after their being received into store, *ib.* 2152–2159——Importance of the canisters of preserved meats being packed and

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Storage and Stowage—continued.

and unpacked with great care; frequency of the meat being ruined from rough usage and bad stowage, *ib.* 2247–2254.

Stores. The periods for taking stock depend entirely upon the issues, *Grant* 10, 11——Reason why the stock of preserved meats has been reduced within the last twelve months, *ib.* 16–21——It might be an improvement if the contractor was compelled to deliver the meat from time to time as it was required by the ships instead of its laying in store, *Morice* 833–836.

See also *Clarence Yard.* *Condemnations of Meat,* 2. *Contracts.* *Receiving Officers.* *Salt Provisions,* 2.

Stowage. See *Storage and Stowage.*

Sureties of Contractors. Sureties are required in every case of a contract for the navy, *Grant* 30–33——Evidence as to the sureties entered into for Mr. Goldner's performing his contract; validity of those sureties; Mr. Goldner's sureties have not been called upon to make good the loss to Government from the condemnation of the preserved meats, *Grant* 115–118; *James* 2583–2599. 2617–2634. 2641——Inquiry instituted into the validity of the sureties proposed by contractors for the proper fulfilment of the contract; this inquiry was made in the case of Mr. Goldner's sureties, *Leyburn* 2761–2765. 2790–2792. 2807–2810.——*See* also *Indemnification from Loss.*

Survey of Meats. Remarks relative to the survey of the preserved meats in the dockyards in 1851; selection of officers for making that survey, *Milne* 529–542——No special survey was ordered previous to the contract for 851 being entered into, although complaints had been received, *ib.* 552, 553——Survey of the preserved meat supplied by Mr. Goldner, in May 1851; good state of preservation of those canisters examined, *Brown* 1175–1178——A considerable survey took place at the Clarence Yard, at the end of the year 1851, when every canister was ordered to be opened, a report to be made of what was good, and the bad to be condemned to be thrown away; result of this survey, *Davies* 1447–1456——Some of the meat in the canisters of the most ancient date was found to be very good indeed; in some instances the meat was of a better description than that more recently supplied, *ib.* 1457, 1458.

The first survey witness was ordered to assist at was in May 1851; only one or two canisters were opened, *M'Kecknie* 1537, 1538——The large survey, upon which Sir Edward Parry ordered witness to attend, commenced on the 30th December, *ib.* 1538——At the survey in May, one large tin canister of 32 lbs. weight was found to be bad, *ib.* 1539–1542——The survey lasted fourteen or fifteen days; every canister was opened, *ib.* 1545–1547——The appearance of the meat was various; witness does not know the dates of the contracts under which the meats were supplied; the appearance of the meat was much worse than those opened in May, *ib.* 1548–1550.

See also *Clarence Yard.* *Condemnations of Meat,* 2. *Hogarth,* Mr. *Inspection of Provisions.* *Special Survey.*

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T.

TENDERS:

1. *Generally.*
2. *How far the Practice of accepting the Lowest Tender might advantageously be departed from.*
3. *Papers laid before the Committee.*

1. *Generally:*

Opinion of the Committee, that as regards the contracts for preserved meats, the general rule should be that they shall be obtained by public competition, *Rep.* xix——Whenever stores are required, a submission is made to the Comptroller of Victualling, and if it meets with his concurrence, it is submitted to the Board of Admiralty for approval, and then advertisements are issued, *Leyburn* 2729-2731——It is the custom for one of the Lords of the Admiralty to attend the Victualling Board on the day appointed to receive tenders, *ib.* 2732——The contract for 1850 was advertised for in the usual way, and Mr. Goldner's being the lowest tender, was accepted; nothing had occurred up to this time which would have justified the Admiralty in excluding Mr. Goldner, *ib.* 2773-2777.

2. *How far the Practice of accepting the Lowest Tender might advantageously be departed from:*

Grounds on which the Committee form the opinion that, supposing the present system of contracts to be carried on, the lowest tender should not necessarily be adopted. *Rep.* x, xi, xix——It has been almost invariably the case in all contracts that the lowest tender has been accepted, *Grant* 125; *Milne* 555-558. 633; *Leyburn* 2732-2736——Supposing the contract system, as regards preserved meats, to be carried on, witness would decidedly say that the lowest tender should not be taken, *Grant* 412——Goldner's contracts were considerably lower in their terms than the others that were tendered for in 1850; statement of the prices, *Milne* 526, 527——Opinion that it is as safe to accept the lowest tender as any of the others, *ib.* 556-558. 563.

3. *Papers laid before the Committee:*

Rejected tenders, *App.* 367——Abstract of tenders for 1,000,000 lbs. of preserved meats, to be delivered into Her Majesty's victualling yards at Deptford, Portsmouth, or Plymouth, and for the following quantities of medical comforts, to be delivered at Deptford; viz., soup and bouilli, 1,000 lbs.; boiled mutton 1,000 lbs.; mutton broth, 1,000 pints; and concentrated gravy, 1,000 quarter pints, *ib.* 386.——*See* also *Contracts.*

"*Terror,*" The. See *Arctic Ships.*

Testing Meats. Opinion that two months after preservation is the best time for testing preserved meats; testing the meat immediately after preservation is not sufficient, *Dangar* 2051-2054. 2062-2064——Necessity for great care being observed in opening cases for testing; frequency of the appearance being bad from rough usage, *Hogarth* 2243-2246——A fortnight is sufficient to test preserved meat, *ib.* 2255-2265——Witness has never had any of his preserved meats

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Testing Meats—continued.

meats returned, as they are never sent out without being proved; average per cent. of cases which fail under the process of proving, *Best* 2480, 2481.

See also *Prices of Meat*, 1. *Salt Provisions*, 1.

Tongue. See *Offal.*

Trevor, Colonel *Arthur Hill.* (Analysis of his Evidence.)—Lieutenant-Colonel of the 59th Regiment; embarked from Cork on the 12th June 1849, on board the "Apollo," with a portion of the 59th Regiment, bound to Hong Kong; number of men, officers, &c., who went out in the "Apollo," 2811–2818——The cholera made its appearance on board the day after the vessel sailed; grounds on which witness forms the opinion that they must have taken the cholera out with them, 2819–2822. 2841–2850. 2860–2867——Nature of the provisions which were served out; salt beef, salt pork, flour, tea, &c., 2823——Witness never considered that the soldiers had enough of any sort of provisions on board; they do not have so much as the sailors, 2823–2827. 2856, 2857.

Preserved meats in tins were taken out, but witness believes they were not begun till after the cholera broke out, 2828–2833. 2866–2872——It was served out two days a week; it was discontinued on the recommendation of the doctor that the men should have a full ration of salt provisions, which did a great deal of good; the salt provisions were very good, 2834, 2835. 2839–2841. 2855. 2858. 2887–2891——Very many of the preserved meats were bad, and were condemned, and were thrown overboard; the stench from them was dreadful, 2836–2838. 2841. 2852, 2853. 2922——Witness does not recollect any complaint being made of any smell arising from the meat before it was opened, 2837. 2851–2853——There was no other article of the provisions that was the subject of complaint, 2859.

Witness does not in any way attribute the breaking out of the cholera to the use of the preserved meat, 2866–2872——It was only a portion of the preserved meats that were condemned; they were not used after the ship left Rio de Janeiro, 2868–2870——There were certainly bad smells on board the "Apollo," but witness does not know that they proceeded from the bad meats, 2877–2886. 2917, 2918——The men had a prejudice against the preserved meats, good or bad, 2891——Some of the preserved meat was very beastly, quite unfit for anything; witness has seen pieces of tongue, and that sort of thing in it, 2892–2897.

Number of persons who died on board of cholera, 2898, 2899. 2902–2907. 2919–2921. 2925–2926——How far the preserved meat was served out to the ship's company, 2900, 2901——The greatest loss from the cholera was after the preserved meats had been opened and served, 2907. 2924–2928——No part of the meat that was condemned was given to the men; the preserved meat laid in at Cork for the officers was very good, 2933–2943.

Tropical Climates. If the meat is properly preserved, there is no reason why the meat should be condemned more from the tropical climates than from more temperate stations, *Grant* 163.

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U.

Unsound Meat. Purchase of meat in the market just previous to condemnation, and use thereof for preserving; the use of bad meat is the chief cause of the failure, *Moore* 2312–2315——Importance of the condition of the animal at the time of slaughtering being strictly attended to; advantage would result from an inspection of all animals intended for preserving, before slaughtering and again at a certain time after death, *ib.* 2315–2321——It is witness's opinion, that under any system of preserving, good meat will be more likely to keep than bad meat, *ib.* 2322–2338——The inspectors of the dead meat markets in London do not efficiently perform their duties, as a large quantity of the meat sold for preserving would be condemned as not fit for use, *Best* 2473–2475.

V.

Vegetables. Vegetables mixed with meat render the meat much more liable to fermentation than the meat by itself would be, *Selfe* 1889, 1890——Witness puts in vegetables with the preserved meats when it is ordered; mixing vegetables with the meat does not make any difference in the preservation, *Hogarth* 2222, 2223.

See also *Condemnations of Meat*, 4. *Potatoes*, Preserved.

Victualling Department (Navy). This department is a branch of the naval administration acting under the Board of Admiralty; the Admiralty have the entire control over the department in every respect, *Grant* 3. 7——The duties of the victualling department of the navy extend to the victualling of Her Majesty's men-of-war and the transports, *ib.* 4——All contracts connected with the victualling of the navy emanate from the department of the comptroller of victualling, *Leyburn*, 2728.

See also *Estimates.* *Expenditure.* *Navy*, The.

Victualling the Navy. Remarks of the Committee on the care which has been bestowed of late years, by successive administrations, upon the victualling of the navy, *Rep.* xix.

See also *Provisions.* *Rations.* *Salt Provisions.* *Soup.*

W.

Warranty. See *Contracts*, 2.

Weighing. The meat is always weighed now independently of the tins; formerly it was not so, *Grant* 80–82.——*See* also *Short Weight.*

West India Station. Witness was upon the West India station in the latter part of 1851 and the beginning of 1852, *Smith* 1694, 1695——There were no complaints made relative to the quality of the meat in the ships on that station, *ib.* 1696.——*See* also *Salt Provisions*, 3.